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AUTHOR Hamilton, James B.; And Others
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ABSTRACT

A study was conducted to develop a model to strengthen the linkages between appropriate Ohio universities and the Ohio Department of Education, State Division of Vocational and Career Education (SDVE). Alternative delivery patterns were reviewed, and appropriate vocational education-university linkage factors were identified. Next, three workable models for improving such linkages were developed, and a composite model was formulated from the three recommended for implementation. Included in the composite model were strategies for delivering the following basic services: preservice education of nonvocational teacher education-degreed persons; supervision of new vocational personnel; pedagogical, technological, and informational update; skills testing; curriculum development and dissemination; and research and development. It was recommended that the Ohio SDVE do the following: establish a transition period of at least 1 year before requiring implementation of the model, give teacher educators an important role in the implementation activities, consider some incentives to ensure the commitment of universities in the State to the proposed activities, contact other States that have reorganized their vocational education-university linkage relationships, and designate at least 50 percent of one SDVE staff person's time to maintain the linkage relationship with universities. (Appendixes to this report contain a list of advisory panel members, model rating criteria, and descriptions of the original three models.) (MN)

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OHIO VOCATIONAL EDUCATION-UNIVERSITY LINKAGES

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James B. Hamilton
Paula Kurth
Hal Merz

U.S. DEPARTMENT OF EDUCATION
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FOREWORD

Historically, state divisions of vocational education and state universities have maintained an important relationship in the vocational education enterprise. In response to current political and economic conditions, however, many states are rethinking and reshaping their state division of vocational education-university linkages. The present project was conducted to develop and recommend for implementation in Ohio a new model of state division of vocational education-university linkages. This report, then, is primarily intended for vocational teacher educators at state universities in Ohio, representatives from LEAs in Ohio, and personnel of Ohio's State Division of Vocational and Career Education (SDVE). The report will be used to guide the reorganization of SDVE-university linkages.

The project was conducted with support from the Ohio Department of Education, State Division of Vocational and Career Education. It benefited significantly from advice received from eight advisory panel members who are listed in appendix A.

This project was conducted in the Evaluation and Policy Division which is directed by N. L. McCaslin, Associate Director. Project staff were James B. Hamilton, Senior Research Specialist and project director of this effort; Paula K. Kurth, Program Assistant; Harold E. Merz, Program Associate; and Harold Starr, Senior Research Specialist. Project staff also included Donna McCowan, project secretary, who was responsible, with the assistance from Sharyn Eberhart, for the word processing of this report.

Critiques of a preliminary draft of this report were provided internally by Steve Franchak, Senior Research Specialist; Floyd McKinney, Senior Research Specialist; Ida Halasz, Research Specialist; Allen Wiant, Research Specialist; and Joel Magisos, Associate Director. External reviews were conducted by advisory panel members. Judy Balogh and Janet Kiplinger of the National Center's editorial staff edited the final draft.

On behalf of the National Center, I am happy to acknowledge and express our appreciation to all those who contributed to this report.

Robert E. Taylor
Executive Director
The National Center for
Research in Vocational
Education

EXECUTIVE SUMMARY

Increased demands for accountability and a narrowing federal agenda for vocational education support have required that most state divisions of vocational education (SDVEs) reexamine their linkages and support for vocational staff development. In Ohio, the need was to bring into sharper focus the roles and responsibilities of the universities and the State Division of Vocational and Career Education (SDVE) regarding professional staff development in the vocational education enterprise.

In order to account more specifically for funds expended and to refocus the target for which those funds are intended, the National Center for Research in Vocational Education conducted a study sponsored by SDVE. The purpose of the study was to develop and recommend a linkage model that would be responsive to the intent of the federal vocational education funding and that would strengthen the linkages between appropriate universities within Ohio and SDVE.

An advisory panel drawn from throughout the nation and Ohio with representation from vocational teacher education, colleges of education, state departments of education and divisions of vocational education, local vocational administrators, a University Council for Vocational Education, a state vocational advisory council, and a research organization advised and assisted project staff throughout the project. The advisory panel input, literature searches, and interviews with state staff in 11 states were instrumental in the development of the linkage models.

Key vocational education-university linkage factors were identified and criteria were developed for evaluating linkage models. Alternative linkage models were developed and evaluated (Models A, B, and C), and a fourth model (Model D) was synthesized drawing heavily from Models A and C with refinements and recommended for implementation in Ohio. Each of the models provide for the delivery of eight basic services:

- Preservice of nonvocational teacher education degreed persons
- Supervision of new vocational personnel
- Pedagogical update
- Technological update
- Informational update
- Skills testing
- Curriculum development and dissemination
- Research and development

Model A provides for the delivery and implementation of services to be coordinated or provided primarily by state universities and local education agencies (LEAs), with SDVE initiating many of the activities. Therefore, the distribution of control is split among universities, LEAs, and the SDVE.

Model B provides for the delivery and implementation of services to be conducted by state universities currently receiving federal funds from SDVE. Based on the extent of services for which a university is responsible, percentages of staff persons' time would be supported to provide for delivery of services and coordination of activities.

Model C provides for the delivery of services to be conducted by university-based vocational staff development centers (VSDCs). The model provides for cost-effectiveness through concentration of resources in staff development centers, establishment of regional service delivery areas, and utilization of existing vocational staff development resources in universities other than VSDCs.

Linkage Model D is being recommended for implementation in Ohio. It embodies the establishment of VSDCs, which are coordination units housed at universities. A VSDC may be formed by a single university or two or more universities may come together under one VSDC. A VSDC will draw upon the human and material resources available in various teacher education and other appropriate departments as well as outside resources. Funding will be made available, through a request-for-proposal (RFP) process to support a VSDC coordinator, clerical staff, and the services of personnel used to provide services, as well as related costs such as travel and supplies. A minimum of four of the eight basic services would be required for qualification as a VSDC.

The intent of VSDC is to utilize the expertise of university staff more on a consulting or rotating basis. This use of personnel will increase opportunities for university staff to balance their duties between teaching, service, and research, thus enhancing professional growth and academic advancement. The use of a consortium of universities would allow the strengths of many state universities with approved vocational programs to be used. Consortia efforts would also help maintain capacity in Ohio to train vocational education personnel. Non-VSDC institutions would be eligible to subcontract with VSDCs and would also be eligible for special purpose projects or RFP funds from the states that are not directly linked to specific VSDC activities.

VSDCs will play a major role in the initiation, coordination, and provision of activities. Therefore, a State Council for Vocational Education Personnel Development will be established. The council, consisting of VSDC coordinators, LEA representatives, and SDVE liaison staff, will meet regularly to share information, to plan, and to ensure that SDVE and VSDCs are in agreement as to the nature, scope, and delivery of services.

INTRODUCTION

Universities and state divisions of vocational education have significant roles in the vocational education enterprise within each state. Vocational teachers and administrators must be trained, research conducted, programs developed, resources allocated, and capacitation maintained to sustain these ongoing functions. How these and other essential functions are assigned and supported is not the result of an arbitrary, rigid set of guidelines. The complexity and diversity of these activities result in arrangements that vary widely among states.

Both state departments of education and universities are interested in using their resources in a manner that realizes the maximum positive effect on vocational education. Division of responsibilities in the total effort, however, is sometimes unclear, with multiple sources of support and their perceived intent adding further vagueness to an already complex situation.

Within the state of Ohio, a long-standing cooperative and collegial relationship has existed between the Department of Education, Division of Vocational and Career Education and nine state universities. Two current factors, however, necessitate changes in the ways federal dollars are spent in Ohio. One is the increased demand by taxpayers in general for accountability of money spent. The second, more complex reason is the narrowing federal agenda for vocational education support.

Like a number of other states, Ohio has long used federal funds to supplement the growth and operation of undergraduate vocational education. Recent federal legislation (the Carl Perkins Vocational Education Act), however, has narrowed the federal role to one of stimulating program improvement rather than building capacity. This by itself encourages a change from a funding pattern that appears to emphasize capacity building to one in which program improvement efforts are more visible.

Therefore, to account more specifically for money spent and to refocus the target for which that money is intended, the National Center for Research in Vocational Education conducted a study sponsored by the Ohio Department of Education, State Division of Vocational and Career Education (SDVE). The intent of the study was to develop a model that was responsive to the federal intent and that would strengthen the linkages between appropriate Ohio universities and SDVE. More specifically, the major objectives were the following:

- To review alternative delivery patterns and to indentify appropriate vocational education-university linkage factors

- o. To design alternative vocational education-university linkage models which clarify the roles of the participants and specify measures of accountability

- o. To recommend a vocational education-university linkage model with processes for funding, implementation, and administration

The next section deals with the approaches and procedures used in developing a vocational education-university linkage model for Ohio.

APPROACHES AND PROCEDURES

Introduction

Developing a linkage model for recommendation to the Ohio Department of Education, State Division of Vocational and Career Education involved the following activities:

- Components to comprise the model were identified.
- The critical factors which contribute to a productive and efficient linkage system in other states were identified.
- Three workable models were developed.
- A composite model was developed from the three models recommended for implementation.

The processes used were meetings with an advisory panel, a literature search, and an informal survey of 11 states. The work strategy for the project was to gain as much information as possible via the three processes (advisory panel, literature search, and state survey) to enable project staff to select the best and most appropriate ideas to use in creating models for use in Ohio. The processes were not separate, discrete steps leading to model development. They were, rather, part of a continuous effort to synthesize information as it was obtained and to use that information to construct models. The remainder of this section will describe the three processes that were used.

Advisory Panel

Eight persons were selected to serve on the advisory panel (see appendix A for names and addresses). The panel consisted of two representatives from universities, two from joint vocational schools, two from state divisions of vocational education, one from a state vocational education advisory council, and one from a vocational education research center.

The panel was convened three times during the course of the project. Panel members helped--

- to identify key linkage factors,
- to identify what teacher education services should be addressed by the model,
- to identify appropriate state models to study,
- to review the three alternative linkage models developed by project staff, and
- to select the linkage model for recommendation.

At the first advisory panel meeting, panel members were briefed on the project's purpose and the current status of

linkages between SDVE and Ohio universities. Panel members and project staff then discussed--

- o states that project staff should contact for study,
- o the key variables that affect and effect linkages,
- o the activities that a linkage model should address, and
- o the criteria for judging a model. (See appendix B for a list and description of the criteria.)

By the second advisory panel meeting, project staff were able to present to the panel--

- o refined model criteria,
- o highlights from both the literature review and state survey,
- o finalized selection of services that would be included in any model developed by the project, and
- o four tentative linkage models.

The advisory panel further refined the model criteria. Models were then evaluated using the criteria and a Likert scale. The model rated as weakest was dropped.

Prior to the third (and final) advisory panel meeting, members received the finalized criteria and detailed drafts of the three models (Models A, B, and C). The models incorporated the suggestions the panel had made at the previous meeting. The panel not only commented on the three models developed by project staff, but also suggested a fourth model, Model D, which was a composite of characteristics judged exceptional from Models A and C plus other modifications. The decision to draft Model D and submit it to panel members for review was made. Models A, B, and C are presented in appendices C, D, and E. Model D is presented in detail later.

Literature Search

A computerized search of the ERIC database provided project staff with 309 abstracts of documents broadly related to the topic. Project staff read the abstracts and selected documents for further review. Previous literature searches were also reviewed. The number of usable documents was narrowed to 14 (see "References and Related Readings" following appendix E). Findings from the literature are discussed later.

One of the more useful documents for the purposes of this study was a dissertation by L. S. Letwin, "Vocational Teacher Education Funding Patterns Used by State Departments of Education." Although the dissertation was completed in 1978, it provided valuable background information for this study.

Survey of States

Project staff members were interested in states where changes had recently occured or where new or different approaches in vocational education-university linkages regarding staff development were being used. Based on the advisory panel's suggestions, the literature review, and National Center staff's suggestions, the following states were surveyed:

- Florida
- Illinois
- Kentucky
- Michigan
- Minnesota
- Mississippi
- New Jersey
- North Carolina
- Oklahoma
- Pennsylvania
- Texas

The state director of vocational education in each state was sent a letter describing the purpose of the study and saying that project staff would be telephoning to gather general information concerning the linkages used to fund preservice or inservice training of vocational educators. Findings from the telephone interviews are presented in section four.

The following section presents a summary of the literature review and the survey of 11 states. The states making comments are not identified as respondents were promised anonymity. The current staff development status in Ohio from which some conclusions can be drawn and projections made is then presented.

STATUS INFORMATION FROM LITERATURE AND OTHER STATES

Information-Gathering Process

An important part of the project was a review of the current status of vocational education-university linkages. This activity involved a literature search and telephone interviews of 11 states. In addition to the literature identified by an ERIC search, project staff examined literature reviews conducted by previous National Center projects dealing with staff development. Scanning hundreds of abstracts revealed that most of the publications focused on the content or substantive nature of individual types of staff development, such as the ideal undergraduate curriculum for teacher education.

Several authors, however, have presented approaches to staff development that have a systems emphasis, that is, viewing pre-service and inservice education as integral parts of a career-long process. Parks (1972) and McComas (1972) outlined models for staff development that feature collaboration among the various agencies sponsoring staff development, and integration of a number of types of activities that are often separated. Similarly, Miller (1975) suggested a model for inservice vocational teacher education that recommends a multi-year framework rather than the typical series of isolated staff development events.

In addition to the theoretical approaches to staff development models, a number of authors have reported on-going efforts in their states addressing enhancement of staff development systems. Pennsylvania (Ryan 1979), Minnesota (Moss 1976), and Michigan (Ferns and Callahan 1983) have initiated new structures or procedures. Another document provided evidence that, like Ohio, many states are reconsidering systems, structures, and funding for vocational education staff development. Letwin (1978) contacted 50 states and actually surveyed 43 states in reviewing vocational teacher education funding patterns. Her thesis supports a number of points and objectives common to the current project and served as a benchmark for states' procedures and activities as of 1976-77.

In order to gain specific information that would complement the theoretical and general background obtained from the literature search, the project's advisory panel was asked to nominate states engaging in promising practices. Further recommendations from other National Center staff familiar with staff development practices in many states, combined with the suggestions of the advisory panel and project staff, resulted in the selection of 11 states. Project staff conducted open-ended

telephone interviews with staff development personnel in the state vocational education divisions of the states. The interviews comprised the following topics:

- o The types of institutions that SDVE funds to provide staff development services
- o Services and activities provided by universities or other institutions
- o Methods/systems used for funding allocation and accountability
- o Planning and evaluation procedures
- o General concerns and recommendations

The interview records served as a basis of discussion by project staff. The following paragraphs summarize key findings from the literature and the survey. Again, comments from the states will not be identified.

Institutional Involvement

Letwin (1978) determined that virtually all SDVE have been providing special funding to vocational teacher education institutions. These funds, which supplement tuition and state regents' support, are mainly comprised of federal vocational education funds targeted for program improvement. In some states, specially appropriated state funds have also been provided to universities. For example, one state legislature had been appropriating special funds for agriculture and home economics education in addition to the regular support for that state's public universities. That funding has now been eliminated. The present trend is toward eliminating state funds beyond the general level of state support for universities, as legislatures scrutinize potentially duplicative fiscal support. For all practical purposes, then, the federal funds constitute the basis for activities discussed in this paper.

State universities with approved teacher education programs are the main funding recipients and service providers for SDVE-sponsored staff development. Letwin (1978) reported that states spent 70 percent of their staff development funds at state universities. The state survey confirms that universities continue to be the main recipient of this funding. In large states with multiple state institutions, the degree of involvement may vary greatly among the universities. The institutions with more established vocational teacher education programs are typically the main providers of vocational staff development. Universities with newer programs are less likely to be involved with SDVE initiatives. A few states have allocated approximately equal funding to all institutions, but variance in funding level and sponsored activities is more common. Besides the public universities, some states support other types of agencies. In at least one state, there is cosponsorship of inservice activities by universities and professional associations. One state surveyed

funds community colleges to provide internal staff development and to assist local districts that are difficult for a university to reach. Another state, which grants points toward recertification for participation in state-approved workshops, uses both universities and business and industry as service providers. In states that use other provider agencies, however, the bulk of the activity is still concentrated in the universities.

Activities Sponsored by SDVE

Although the historical focus of state support was undergraduate teacher preparation, the more recent trend has been toward inservice rather than preservice activities. Letwin (1978) reported that across all states, 56 percent of staff development funds were spent on inservice education and 44 percent on preservice. Both the literature and interviews show that undergraduate education is increasingly perceived as a responsibility that the university must provide from basic revenue sources (tuition and regents' support), not from state vocational education funds.

In the 11 states interviewed by the project staff, activities frequently mentioned as responsibilities of the universities include the following:

- Operation of programs designed to equip new nondegreed teachers with essential elements of teaching skills
- Pedagogical skills workshops to enhance the ability of active teachers
- Technological update workshops to renew the subject matter skills of vocational instructors
- Inservice activities for vocational administrators and supervisors
- Assistance to vocational student organizations

Research and development (R&D) and evaluation efforts are more sparsely funded than the above activities. Usually, R&D is sponsored on a separate request-for-proposal (RFP) basis rather than being tied in with other university-based activities. Furthermore, there is little indication that the improvement of staff development is a prominent topic for R&D.

Curriculum development activities are frequently centralized at one university or housed within the SDVE. Other universities may be funded for curriculum development related to the specific expertise of their staff. Among the 11 states, a range of atypical activities was identified. Some examples of such activities are as these:

- Allocation of funds to all funded institutions to allow teacher educators to undertake professional development activities

- o Recruitment assistance to LEAs seeking additional vocational staff, with an emphasis on recruiting candidates from business and industry
- o Scholarships for undergraduate vocational education students
- o Funding support for a collaborative council of teacher educators that meets extensively with state staff
- o A program whereby teacher educators spend 2 weeks per year in a secondary-level vocational classroom

Structure of the Funding Patterns

In Ohio, the State Division of Vocational and Career Education currently supports the vocational education enterprise by reimbursing 50 percent of the salaries and benefits of designated university teacher educators and support staff. According to Letwin (1978), this practice was historically used by most states beginning in 1917 when the Smith-Hughes Act stipulated categorical support for vocational teacher education. The percentage of support was most commonly 50 percent but in at least one state, the reimbursement was at the 100 percent level. Although the set-aside for teacher education was dropped with the enactment of the George-Barden Act in 1946, the states continued to use a salary reimbursement pattern. The federal funds supplemented state funds during a period of tremendous growth in vocational education.

Letwin (1978) found, however, that by 1978, only 12 states reported the use of salary reimbursement as a feature of the state vocational education-university linkage. As vocational teacher education departments matured and the national economic climate moved toward slower growth and selective use of resources, a variety of funding patterns have evolved. Furthermore, it is common for states to use a combination of patterns rather than relying strictly on one allocation mechanism. Letwin (1978) found that 30 of the 43 states reviewed used a combination of 2 or more funding patterns. In interviews with the 11 states, there are combinations such as core institutional support paired with competitive RFPs, or competitive RFPs plus sole-source allocations. There are such a variety of patterns that it would be difficult to present a comprehensive listing. However, most of the mechanisms can be grouped in one of three general classifications:

- o Tradition-oriented general support
- o Continuing, specified services
- o Annual contracts or competitive grants

These classifications represent stages of historical development. There has been a trend for states to move through these stages, which are described in the following paragraphs.

The tradition-oriented general support mode is a pattern in which funds are allocated to the universities based either on

inflation-adjusted historical costs or by reimbursement of a set percentage of salaries. Both the funding levels and the activities tend to be set by custom and are not subject to much change. The relationship between the university and SDVE is informal and the reporting and accountability requirements few. This mode seems to work best where there is a "gentlemen's agreement" between the universities and state. The advantages are predictability and continuity of services. The disadvantages are a lack of accountability mechanisms and the difficulty of rewarding institutions differentially to reflect variances in capacity or particular strengths. For example, some states followed the practice of allocating identical amounts of funds to each university regardless of the enrollment or faculty strength in vocational departments.

The continuing, specified services mode represents a transition from the tradition-oriented rubric into a milieu of formal planning and budgeting. Under this style of operation, the university and SDVE negotiate annually about the services to be provided and the associated budget. There tends to be multi-year continuity of funding, but the activities may change. The budget is based on personnel and other requirements necessary to carry out the work, rather than being based on an historical cost trend. For example, in one state, the university estimates the number of faculty days of service needed to accomplish the projected activities. From this estimate, a budget is developed and negotiated with the SDVE. The advantages of the continuing, specified services approach are continuity of funding and, for the state division, more fiscal accountability for the sponsored activities. The disadvantages may include increased paperwork for all parties and a tendency to make decisions based primarily on fiscal variables rather than on qualitative aspects of program operations.

Moving further along the continuum, some states have adopted an annual contract or competitive grant mode for sponsorship of staff development. The competitive grant has traditionally been used in many states to award funds for exemplary and R&D projects. The trend, however, is toward using this approach for support of an increasing array of staff development services. One state interviewed no longer guarantees continuous funding to any university but operates all staff development projects on either a competitive RFP or from a sole-source approach. In some states, other organizations are eligible to compete for the projects. The primary advantage of the competitive grant is that it allows the state division to operate a given project at a cost that may be favorable due to competition. But on the other hand, a disadvantage is that this approach could thwart the universities in efforts to build capacity to provide other staff development services.

The preceding paragraphs have described the current status of funding practices used by states. It should be noted that some approaches were not being used by any state in the sample or in

any case described in the literature. For example, voucher, entitlement, or other plans involving local districts in regular distribution of vocational staff development funds were not found. A number of states, however, do have a mechanism for allocating staff development funds to general K-12 education. These plans fund the districts on a per-pupil or per-teacher basis (i.e., $5 per pupil or $100 per teacher per year). The survey did not uncover any information about the impact of these funds on vocational educators' staff development. Furthermore, in several states, these plans have been enacted (or altered) so recently that it is difficult to form a fair evaluation of their success.

The Planning Process for Staff Development Activities

Along with fiscal concerns, the process for planning staff development activities was a major focus of this analysis. Feedback from the state interviews shows that SDVE staff often provide the dominant thrust for planning staff development activities. Priorities are set by internal discussion among service area supervisors. Teacher educators are more likely to be involved at the activity and budget negotiation stage than at an earlier part of the planning process.

In one state, however, a formal collaborative council of teacher educators meets monthly with state staff to plan and discuss staff development activities. A SDVE staff member has a full-time role as coordinator and liaison with the university representatives. In another state, teacher educators and state staff jointly plan and present staff development programs for vocational directors, supervisors, and new teachers.

One surprising aspect of the planning in view of the number of persons involved and the dollars expended is the scarcity of formal needs assessment and data-based approaches to planning. Although most states have the capability to conduct research on needs and perceptions of vocational educators, this either is not occurring or is not a visible part of the planning process. Another concern is the degree to which program evaluation activities by SDVE affect staff development planning. According to theory, at least, mandated local program evaluations should be a source of input to staff development planning. However, the states surveyed did not mention these evaluations when queried about the process for planning and priority setting. Although the evaluations do not deal heavily with teacher competencies or developmental needs, there is still potential for synthesizing the evaluation results to provide input for statewide planning.

Areas of Concern or Potential Improvement

As part of the interview process, SDVE representatives were invited to offer comments and ideas about how the vocational

education-university linkage could be improved and also about other factors of concern.

The overall level of funding was often reported as a concern. The base from which states fund staff development and other program improvement activities is shrinking. In some states, special state funds that were used to supplement federal program improvement funds have now been removed by legislatures. Meanwhile, the real buying power of the federal program improvement funds has been reduced by the substantial inflation of the late 1970s and early 1980s. Finally, several states indicated a concern about the new federal legislation (The Carl Perkins Vocational Education Act) and how it might affect funding for staff development.

The amount of funds available to individual institutions has also been a concern. The shrinking overall funding base has meant that the amounts available to institutions have also decreased in real terms. Several states have implemented plans or desire to concentrate funds on a smaller number of institutions offering more comprehensive programs and services.

As an aspect of potential improvement, several states would like to increase the involvement of teacher educators in the staff development planning process. The participation of teacher educators has been limited in many of the states, as was pointed out previously. Letwin (1978) reported that in 30 of the 43 states, teacher educators were dissatisfied with the linkage arrangements, regardless of the funding pattern in use. Part of this dissatisfaction may have been related to the lack of appropriate opportunities for input into the process.

Certification requirements are an additional factor that concerns the states. The requirements and regulations are in flux in almost every state. The outcome of changes to the regulations will have an effect on the types of staff development activities that will be sponsored. Both preservice and inservice education plans will depend on the requirements enacted.

THE CONTEXT FOR DEVELOPMENT OF A LINKAGE MODEL IN OHIO

Identifying the Factors Involved

The previous sections detailed what might be called a multi-state or national examination of state vocational education-university linkage patterns. The insights gained from this activity are valuable, but they must be applied to the particular context of the state of Ohio in order to establish a basis for a model or models. Some significant factors that should be highlighted in this process are the following:

- o Trends and directions concerning the federal priorities for vocational education and federal funding
- o Growth patterns for vocational education in Ohio
- o Trends in professional personnel preparation for vocational education in Ohio

The ensuing sections of the report will discuss those factors and their implications for linkage models.

Federal Priorities for Vocational Education

Recent legislation (both the 1976 Vocational Education Amendments and the Carl Perkins Vocational Education Act) has implications for the context of linkage models in Ohio. For example, the federal role is characterized more as a program improvement stimulus, rather than as just another funding source for regular programs and activities. Use of federal funds to support regular ongoing teacher education programs could be seen as a violation of this principle. Any federal funds used for staff development must supplement rather than supplant the state and local funds. The federal funds must have a visible, traceable impact. The intent of these measures is to encourage states to "disinvest" in ongoing activities and place their federal funds toward promotion of new activities.

Economic efficiency has been another focus of recent federal legislation. Improvement of productivity and promotion of economic growth are among the basic goals of the Carl Perkins Vocational Education Act. Along with this goal or thrust, there has been a definite emphasis on evaluation and accountability for public funds. The expectation is that states will place the federal funds where they will have the greatest leverage and impact on programs.

The fundamental implications for staff development linkage models are that a model should (1) involve the universities and LEAs in innovative approaches or new types of staff development activities and (2) allow for cost-effective application and monitoring of federal funds. The narrowing federal agenda seems

to preclude the tradition-oriented general support approach that Ohio and other states have long been using.

Vocational Education Trends for Ohio

After several decades of growth, secondary school enrollments in Ohio peaked in the late 1970s and are expected to decline for the remainder of the decade. According to the 1978 and 1985 State of Ohio Department of Education (1978, 1984) state plans for vocational education, the enrollment in grades 11 and 12 was 393,000 in 1983 but is projected to be only 298,000 by 1989. Although the goal for secondary vocational education has been increased from 40 percent of grades 11-12 to 50 percent for grades 11-12, actual enrollment in secondary occupationally related programs dipped from 139,092 in 1978-79 to 128,242 in 1981-82 (U.S. Department of Education, 1983, 1984).

Along with the enrollment, local staffing in vocational education has peaked. The total number of vocational teacher units for the state has dropped from 7,992 in fiscal year 1983 to 7,847 in 1984. This does not necessarily mean, however, that the total vocational teaching staff dropped by 145 persons. In some cases, the enrollment in a program may have dropped below the level at which the state provides full unit funding. In such a case, the program would not be counted as a full unit.

Nonetheless, the data do reflect a reduction in the number of new vocational instructional staff being hired in the state of Ohio. State data for 1983 show that in that year only 201 new teachers were added and in 1984 only 258. These figures represent only about 3 per cent of the total teacher units for the state. This level of hiring is below the commonly assumed teacher turnover rate of 6-10 percent per year.

These factors have important implications for staff development models in Ohio. First, the teaching staff as a whole is "graying." The number of new teachers hired during the past few years has been small compared with the numbers hired in the early 1970s. The State of Ohio Department of Education (1974) state plan for vocational education projected a need for hiring between 1,000 and 2,000 new vocational teachers per year during the mid-1970s in order to meet program growth and turnover replacement needs. And even though there has been attrition of experienced teachers to other occupations, the proportion of vocational teachers with over 10 years in the field has become notable. The following table shows the proportion of teaching staff for various service areas that have 0-2 years teaching experience, and then 10 or more years, as of 1984:

TABLE 1

VOCATIONAL STAFF TEACHING EXPERIENCE, 1984

Service Area	Total Teacher Units	0-2 Yrs	%	10 or More Yrs	%
Voc. Ag.	626	80	13	309	49
Trade and Ind.	2,817	213	8	1,796	64
Health	221	26	12	110	50
Home Ec.	1,828	183	10	809	44
Marketing	871	53	6	614	70
Bus. and Office	1,427	117	8	795	56
Total	7,847	678	9	4,618	59

Because of the limited hiring of new teachers, changes in the undergraduate vocational teacher education curricula will have only a small impact on vocational programs in local schools. Because of the low turnover, many schools may not have hired any new instructors in a given year. Staff development programs must therefore now focus on the experienced teacher who may have needs for pedagogical or technological updating experience. This is a different situation from the 1960s and 1970s, when large numbers of individuals were entering the profession.

The trends of the past 10 years indicate a considerable reduction in the number of vocational teacher education graduates in Ohio. The following table shows the number graduating in 1972 and in 1982 by vocational service area.

TABLE 2

VOCATIONAL TEACHER EDUCATION GRADUATES
BY SERVICE AREA, 1972 AND 1982

Service Area	1972 Grads	1982 Grads	% Change
Vo. Ag.	55	43	-22
Bus. and Office	368	198	-46
Distributive Ed.	68	29	-57
Home Ec.	435	109	-75
Trade and Ind.	41	39	- 5
Total	967	418	-46

The reduction, number-wise, has been most severe in business education and home economics. Agriculture and trade and industrial programs have seen a smaller proportion of reduction. The impact of the reduced numbers has affected programs at the universities. The following table shows the impact on various Ohio institutions, including private colleges.

TABLE 3

TOTAL VOCATIONAL TEACHER EDUCATION GRADUATES
FOR ALL SERVICE AREAS AT APPROVED
TEACHER TRAINING INSTITUTIONS, 1972 AND 1982

Institutions	1972 Grads	1982 Grads	% Change
U. of Akron	85	40	-53
Ashland College*	14	11	-21
Bowling Green St.	164	90	-45
Central St. U.*	8	7	-12
U. of Cincinnati	64	33	-48
Cleveland St.	15	1	-93
U. of Dayton*	8	10	+25
Findlay College*	3	5	+67
Kent State	66	37	-44
Miami U.	50	18	-64
Ohio State U.	179	107	-40
Ohio U.	24	11	-54
U. of Toledo	12	13	+ 8
Wright St. U.*	25	21	-16
Youngstown St.*	15	10	-33

* Institutions not receiving special SDVE funding

With the exception of some institutions that had very small programs even in 1972, the public and private institutions have experienced widespread reduction in vocational teacher preparation. The institutions receiving contractual state division funds operate the larger programs but also have experienced the more substantial declines.

Because of the maturation of vocational education teachers in Ohio and the reduction of vocational education teacher graduates, it may be tempting to think these trends are applicable to undergraduate teacher preparation in the long range. However, there are two factors that should be taken into account in examining the long-range (10-15 years) context for preservice and inservice staff development.

First, there is the potential that "graying" may be followed by heavy teacher retirements. During the decade 1990-2000, many of the individuals hired during the heavy growth period of vocational education will have accumulated 25-30 years of service and will be contemplating retirement. Discussion with State Teachers Retirement System staff revealed that the average Ohio teacher retires with 27 years of service. At the same time, the baby boom parents' children will have entered high school. Therefore, after some 15 years of decline, the secondary enrollment will grow again. Some of this growth may translate into additional vocational programs and staffing needs. Meanwhile, if vocational teacher preparation programs have been

allowed to languish, a significant teacher shortage could develop. In order to avoid a shortage problem, staff development linkage models for Ohio should include plans to assist universities, as a legitimate side effect, to maintain capacity and commitment toward vocational education.

The fundamental question is whether the institutions will continue a commitment to vocational teacher education. As of this writing, one public university in Ohio which was a recipient of contractual SDVE funds, has decided to eliminate vocational education from the undergraduate education curriculum. In considering linkage models for staff development, SDVE must consider mechanisms that will foster the continued institutional support toward vocational education and encourage the universities to value a commitment to vocational education.

The Ohio Model Development and Selection Process

In order to develop some alternative linkage models for Ohio, the project staff evaluated all the data from various sources of input and manipulated the following variables:

- o Types of staff development services to be provided
- o Roles of the agencies to be involved
- o Decision-making procedures
- o Accountability mechanisms
- o Funding patterns

It soon became clear that unless some basic presuppositions were established, a myriad of different models would have to be proposed and compared. The process could be compared to the engineering development of a new automobile, where specifications such as size, seating arrangement, drive train, and fuel economy must first be decided before the more detailed planning can proceed.

One decision that simplified the process was that all the models would address a common array of services. The models could provide for distinctions in the delivery of services, but each would present a means for meeting the needs. With the assistance of the advisory panel, the project staff selected the following services:

- o Preservice for individuals entering teaching without an undergraduate degree in vocational teacher education
- o Supervision of new staff
- o Pedagogical update
- o Technological update
- o Informational update
- o Skills testing
- o Curriculum development and dissemination
- o Research and development

Descriptions of the services will be featured in a later section.

To identify variations in agency roles, staff utilized a matrix in which each service was matched with potential coordinating, providing, and funding agencies. The purpose was to identify different patterns for service coordination. For some services, multiple arrangements are feasible, whereas for other services one logical pattern for service coordination clearly stands above other arrangements. The outcome of the matrix analysis showed that although the public universities should be the main service coordinators, local education agencies (LEAs), business and industry, and SDVE could also provide staff development.

In summarizing the funding patterns used in various states, three modes of operation were described: (1) tradition-oriented general support, (2) continuing, specified services, and (3) contract or competitive grant. Project staff decided that variations of the continuing specified services mode should be used as the funding patterns of the models. This pattern represents a compromise between institutional support and accountability. In states where it has been extensively implemented, the competitive grant mode has had an unsettling or destabilizing effect on universities. On the other hand, the traditional pattern lacks the accountability provisions necessary in the current economic-political milieu. The continuing specified services mode will lend stability to institutional planning while providing the required accountability.

Based on the preceding information and decision guide..nes, the staff proposed four models to the advisory panel. One model basically modifies the current Ohio approach by adding formal accountability while maintaining the current institutional roles. Another model delegates funding and decisionmaking for several services to the LEAs. A third model includes the LEAs as direct clients, but limits their option to technological update activities. The fourth model advocates a concentration of resources toward the establishment of university-based vocational staff development centers (VSDCs). In this model, the funds are directed more toward institutions or consortia of institutions that offer a broad array of services.

The advisory panel established the criteria for rating the models, which are listed in appendix B of the report. After rating the four models on a Likert scale, it was decided to drop the model with heavy LEA decisionmaking from further consideration. The consensus was that this model would depend too much on highly variant local school expertise and would be difficult to administer on a statewide basis.

The remaining three models, including the one with a more limited LEA component, were recommended for further development. The next sections depict these models, which are designated with the letters A, B, and C, beginning with a comparative overview. Full texts of Models A, B, and C are included in appendices C, D, and E.

OVERVIEW OF MODELS A, B, AND C

Models A, B, and C have a number of common features. First the models address a common array of eight services. The primary, though not exclusive, coordinators of the services in each case are state universities. Another common feature is that the funding mechanisms for each model are designed with a multi-year focus to foster stability. Finally, the models all provide, where appropriate, a generic approach to the provision of services.

On the other hand, the following factors show distinctions among the models:

- Who is involved in decision-making and priority-setting, especially the degree of LEA involvement
- Who provides or coordinates the service
- The coordination mechanism
- The distribution of resources--centralized vs. decentralized
- Who is responsible for providing quantitative and qualitative data

The subsections that follow provide cross-sectional comparisons of Models A, B, and C in terms of delivery patterns, services and roles, and contractual arrangements. Along with charts of strengths and weaknesses, Models A, B, and C are presented in full in appendices C, D, and E.

Delivery Patterns

Model A allows for the delivery and implementation of services to be coordinated or provided primarily by state universities and LEAs, with SDVE initiating many of the activities. Therefore, the distribution of control is split among universities, LEAs, and SDVE. The determination of these roles was based upon the unique strengths of these parties. Although universities provide the bulk of the services, they do not initiate these services. The responsibility for initiation lies with SDVE and LEAs. The coordination of services and determination of priority topics lies mainly with SDVE and universities. In most cases, the state universities are the deliverers or coordinators of services.

Model B provides for the delivery and implementation of services to be conducted by state universities currently receiving federal funds from SDVE. The extent to which a specific university would be involved in the delivery of services would depend upon its capacity to provide those services. Oversight and input is provided by SDVE. Input is also provided by the LEAs.

Based on the extent of services for which a university is responsible, a percentage of a staff person's time should be supported to provide for coordination of activities. University representatives would meet with SDVE staff. The purpose of these meetings would be to determine topics to be addressed via pedagogical, technological, and informational update activities and to keep SDVE staff up-to-date on the status of other services.

Model C provides for the delivery of services to be conducted by university-based vocational staff development centers (VSDCs). VSDCs are responsible for coordinating all services, providing most services, and initiating many services. Except for a coordinator and a small clerical staff, VSDC would use university staff (and others if appropriate) on a consulting or rotating basis.

Since VSDCs play such a major role in the initiation, coordination, and provision of activities, a State Council for Vocational Education Personnel Development would be established. The council would consist of the VSDC coordinators and appropriate SDVE staff. The purpose of the council, which would meet on a regular basis, is to ensure that SDVE and VSDCs are in agreement as to the nature, scope, and delivery of services.

Universities that have approved vocational teacher preparation programs but that are not involved in a VSDC have a role in this model. VSDCs can subcontract not only with other VSDCs and VSDC institutions, but also with these other institutions. Non-VSDC institutions would also be eligible for any special purpose or research and development funds which are not directly linked to specific VSDC activities.

Description of Services and Roles

Models A, B, and C each provide for the delivery of the same eight basic services: (1) preservice, (2) supervision, (3) pedagogical update, (4) technological update, (5) informational update, (6) skills testing, (7) curriculum development and dissemination, and (8) research and development. As previously mentioned, the purposes of these services are the same in all three models. The following is a description of the services and the roles the three key actors--state division, universities, and LEAs--play in each of the services.

Preservice

The major preservice activity deemed essential in vocational teacher education is one that will develop the competence of non-degreed teachers or degreed persons who have not received formal vocational teacher training to the point of State certification. Currently, this activity takes the form of basic teaching skills workshops. While this is an appropriate activity, other means of

providing the skills necessary to prepare these persons to enter the teaching profession may be developed.

The roles are the same for the three models. SDVE determines who requires this assistance and assigns them to the appropriate university (or VSDC) for training. The universities (or VSDCs in the case of Model C) provide the training, evaluate it, and improve the training based on the evaluation.

Supervision

First- and second-year teachers can benefit greatly from supervision by experienced university vocational teacher educators. The transition from the role of worker or student to the real world of teaching can be greatly facilitated by providing an experienced mentor who is both current on pedagogy and experienced in teaching in the service area. The needs of vocational teachers who do not possess vocational teacher education degrees should be given special emphasis in this respect.

The roles are the same for all three models. SDVE identifies where new teachers are located and assigns them to universities based on region and service areas. The universities (or VSDCs in the case of Model C) provide supervision for these individuals, evaluate it, and improve it based on the evaluation. Universities or VSDCs disseminate outcomes to all Ohio colleges and universities.

Pedagogical Update

New teaching methods and theories need to be disseminated among vocational personnel. This is of special importance as the population of vocational personnel at the secondary school level matures (i.e., stays in the profession longer). This activity could take the form of workshops, seminars, newsletters, or university courses taken off-campus to where the need for the course exists. In the latter case, the funding allocation would cover only the costs not covered by participants' tuition.

In Model A, SDVE conducts a formal needs assessment during the planning cycle prior to the beginning of the multiyear period and works with university representatives to select the topics to be presented. Under Model B, SDVE more informally obtains input from LEAs regarding their needs for pedagogical update but still works with universities to determine topics. Model C shifts the responsibility for conducting a formal needs assessment to the VSDCs, but SDVE and VSDCs still work together to determine topics.

Technological Update

Because vocational education must remain relevant to current business and industry practices, it is imperative that vocational

personnel keep up-to-date on new technology. This activity could take the form of workshops, newsletters, training films distributed to LEAs, exchanges with business and industry personnel, or university courses, to give but a few examples. Even if LEAs do not have the resources to obtain new equipment, their vocational personnel should still be acquainted with new machinery and innovative practices in business and industry.

In Model A, the SDVE conducts a formal needs assessment during the planning cycle prior to the beginning of the multiyear period and, in addition, collects information from professional organizations, PRIDE reviews, universities, and selected businesses and industries. SDVE alone determines activities, topics to be addressed, and service providers. The LEA role in Model A is to select activities from a list of SDVE-approved activities and service providers, request funding, coordinate activities, and administer the budget. Universities may elect to have their staff participate in technological update activities.

In Model B, SDVE gathers information less formally from LEAs regarding technological update needs and determines topics and delivery modes in conjunction with universities. Universities, in addition to assisting SDVE in topic and delivery mode determination, deliver or coordinate technological update activities.

Model C puts the total responsibility for technological update on VSDCs. VSDCs conduct the needs assessment of LEAs, survey selected businesses and industries, determine topics and delivery modes, and deliver or coordinate delivery of services.

Informational Update

Informational update differs from pedagogical update in that it deals with more general types of information, for example, new federal legislation or thrusts such as individualized education plans (IEPs), displaced homemakers, and so forth. This information can be disseminated, for example, via seminars, newsletters, teleconferences, or university courses delivered off-campus. In the latter case, if university courses are taken off-campus, only the costs not covered by participants' tuition would be covered by the funding allocation.

Model A calls for the SDVE to conduct a formal needs assessment during the planning period prior to the beginning of the multiyear cycle and to obtain input from SDVE staff and universities. The universities and SDVE work together to select the topics to be presented, but the universities are responsible for presentation.

Model B calls for SDVE and universities to determine the topics to be presented. The universities then present the information in a manner they deem and the SDVE concurs is appropriate.

Model C calls for VSDCs to conduct a needs assessment of LEAs, to obtain input from SDVE regarding state and federal thrusts, and, in conjunction with SDVE, to determine the topics to be presented. VSDCs are then responsible for presenting the information.

Skills Testing

Some teacher degree candidates need to have their level of technical skill evaluated, as do some non-degreed teacher candidates. This, traditionally, has been done through the administration of National Occupational Competency Testing Institute (NOCTI) tests or similar tests by university personnel. There may be other options for determining skill proficiency.

In Models A and B, each university is responsible for testing its own teacher candidates. In Model C, only VSDCs provide skill testing.

Curriculum Development and Dissemination

SDVE has a long history of supporting curriculum development and dissemination to meet statewide needs. Although one might consider this activity to include only original curriculum development, the intent of this model does not preclude such cost-efficient activities as purchasing, updating, or adapting existing curriculum. The curriculum development activity can most efficiently and effectively be conducted if centralized at one university.

Models A, B, and C are similar in that curriculum development and dissemination are centralized at one university (or VSDC in the case of Model C) and that SDVE determines the curriculum needs. The models differ in that Models A and B put the responsibility for conducting a formal needs assessment on SDVE. In Model C, VSDCs conduct the needs assessment, but SDVE receives those data, adds information from the PRIDE reviews, and takes into account state and federal thrusts.

Research and Development

Although research and development activities are seen as an integral part of some of the services (preservice and supervision), the need for research and development in vocational education extends far beyond these two areas. Therefore, all Ohio universities and other appropriate agencies would be eligible to compete for R&D allocations that are not tied to the pre-service and supervision components.

R&D that is not directly connected to the preservice or supervision services would be dealt with in the same way in all models. SDVE would issue requests for proposals and the universities or VSDCs would be eligible to respond.

Contractual Arrangements

In general, the contractual arrangements were conceived as responses to an SDVE need for accountability regarding expenditure of funds and a perceived need to maintain university capacity as much as possible through stable funding. The following brief descriptions highlight the contractual arrangements for Models A, B, and C.

Model A

Universities could be offered the opportunity to enter into multiyear working agreements to provide preservice basic teaching skills, new teacher supervision, pedagogical update, informational update, and skills testing services. Accountability could be verified through annual reports for each of the services. The reports, written by the individual universities, would be submitted to SDVE at the end of the contract year. Since several services provide for an integrated R&D activity, the reports could provide qualitative as well as quantitative information.

LEAs could be provided direct funding for the technological update service. The funding could take the form of mini-grants awarded each year. Accountability would be verified on the basis of evidence that activities were held and attended as planned.

Model B

The ideal contract format under this model would be a multi-year working agreement with provisions for annual renewal and negotiation of activities. This agreement would be a master contract to each institution receiving funds and would cover all of the services the university agreed to provide. On a year-to-year basis, the funding for some activities would remain fairly constant, thus providing stability of funding. A few activities (supervision of new teachers and preservice) would vary from year to year; however, this variance would, in the overall picture, not cause the total number of dollars in a master contract to change significantly.

The accountability mechanism could include brief reports for each short-term activity; longer final reports could be required for supervision and preservice (basic teaching skills for persons who do not possess vocational teacher education degrees) activities. An end-of-year report, in the form of a statistical summary of activities, could be submitted.

Model C

The ideal contract format under this model is a multiyear working agreement with provisions for annual renewal and negotiation of activities. Each VSDC contract with SDVE would be only for those services VSDC had agreed to provide. In order to qualify as a VSDC, however, an institution would have to submit a

proposal for four of the eight services. Three of the services should be preservice, supervision, and pedagogical update. The fourth service that ideally should be included is skills testing. The delivery of services would not have to be done by VSDC contract institutions. Rather, much strength can be gained from consortium efforts. A consortium would draw upon the specialties of other institutions precluded from proposing for the VSDC contract because of a narrow offering of service area programs.

Accountability could be verified via an annual report detailing the year's activities and outcomes. Because of the large amount of funding per VSDC, SDVE might commission an impartial third party to review each VSDC. The review would occur in the middle year of the multi-year working agreement. This would facilitate the implementation of changes that might be deemed necessary.

Summary Chart

Table 4 summarizes the major differences between the three models. It includes service provision locus, the process for needs input, differences in funding, accountability mechanisms, and the consequences or implications of the model if it were to be implemented.

TABLE 4

SUMMARY CHART

Model	Service Provision Locus	Needs Input Process	Funding Differences*	Accountability Mechanisms	Implementation Mechanisms
A	Several universities with differing capacities, and LEAs for technological update	Comprehensive multi-level formal needs assessment Codetermination of priorities by SDVE and universities	Less total funding available to universities LEAs receive direct funding	Annual reports from universities Certification of services rendered from LEAs	Improved attitudes of LEAs Increased voice of LEAs Diffused funds Potential for reduced efforts in technological update by universities
B	Several universities with differing capacities	Needs informally assessed by SDVE and multiple universities Codetermination of priorities by SDVE and a regularly meeting council of university representatives	Potentially similar to current levels of funding	Annual activity reports from multiple universities	Improved interaction among teacher education institutions More SDVE influence and control In-place mechanisms for dealing with common problems
C	Limited number of universities or consortia of universities with comprehensive programs	Informal assessment by SDVE and regional formal needs assessment by VSDCs Codetermination of priorities by SDVE and VSDC	Decreased funding to some universities; increased funding to others	Annual activity reports Third-party midcontract review	Political ramifications of creating VSDCs Redistribution of funding allocation among universities Better potential for cost-effectiveness, accountability, and quality Creativity fostered

*Based on the assumption that the total funds available for staff development are maintained at the present levels.

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MODEL D

Overview

Model D is the model being recommended for implementation in Ohio. This model draws heavily on Models A and C and includes modifications suggested by the advisory panel. For example, the concept of a council of VSDC coordinators was enlarged to include SDVE liaison personnel and LEA representatives; the responsibility for the technological update component now becomes a joint effort of the SDVE and LEAs, and VSDCs will function with the assistance of an advisory council, which includes LEA representatives.

Model D provides for the delivery of eight basic services:

- o Preservice of nonvocational teacher education degreed persons
- o Supervision of new vocational personnel
- o Pedagogical update
- o Technological update
- o Informational update
- o Skills testing
- o Curriculum development and dissemination
- o Research and development

A description of the eight services is contained later in this section. Briefly, vocational staff development centers (VSDCs) will be solely responsible for the provision of preservice, supervision, pedagogical update, and informational update. A VSDC is a coordination unit housed at a university. Several universities may come together under one coordination unit. The extent of participation in technological update and research and development will vary among VSDCs since LEAs, other agencies, and businesses and industries will also be eligible to provide these services. Only one VSDC will conduct SDVE-supported curriculum development. In addition, VSDC institutions will administer the salaries and benefits of those university employees who maintain offices and have regular assignments at the State Division of Vocational and Career Education (SDVE).

As previously mentioned, VSDC is a coordination unit housed at a university and several universities may come together under one coordination unit (VSDC). A VSDC will draw upon the human and material resources available in various teacher education and other appropriate departments as well as outside sources. Funding will be made available through requests for proposals (RFP) to support a VSDC coordinator, a small clerical staff, and the services of personnel used to provide services, as well as related costs (supplies, travel, and so forth).

Except for the coordinator and a small clerical staff, the intent of the VSDC, then, is to use university staff (and others as appropriate) on a consulting or rotating basis. This use of

personnel is based on the need of university staff to balance their duties between teaching, service, and R&D to enhance their opportunities for professional growth and academic advancement. A consortium of universities would allow the strengths of many state universities with approved vocational programs to be used. The consortium effort would also help to maintain the capacity to train personnel. For these reasons, one of immediate practicality and the other of future necessity, the inclusion in the VSDC effort of universities with a more limited array of service area programs is of great importance. VSDCs will be free to subcontract, if SDVE approves, as they feel is appropriate. Non-VSDC institutions will also be eligible for any special purpose or RFP funds not directly linked to specific VSDC activities.

Since VSDCs play such a major role in the initiation, coordination, and provision of activities, a State Council for Vocational Education Personnel Development would be established. The Council will consist of the VSDC coordinators, at least one LEA representative from each region, and SDVE liaison staff. The purpose of the council is to share information and ideas and provide mutual assistance. The council will meet regularly (ideally once a month) to ensure that SDVE and VSDCs are in agreement as to the nature, scope, and delivery of services.

This model differs from current practice in that the SDVE conducts a formal needs assessment before the start of each multi-year period and VSDCs assume more responsibility for initiating activities with greater assurance to SDVE that goals are met. Another important difference is that LEAs have direct input and choice regarding technological update. This model differs from Models A and B in that there is more concentration of resources.

Services and Role Description

Model D consists of eight basic services deemed essential to the maintenance of a professional, up-to-date cadre of vocational educators. Following are definitions of the services and roles and responsibilities for service delivery.

Preservice

The major preservice activity deemed essential in vocational teacher education is one that will develop the competence of non-degreed teachers or degreed persons who have not received formal vocational teacher training to the point of state certification. Currently, this activity takes the form of basic teaching skills workshops. Although this is an appropriate activity, other means of providing the skills necessary to prepare non-degreed persons to enter the teaching profession may be developed.

The SDVE role in this activity is to determine who the persons are requiring this assistance and to assign them to the appropriate VSDC for training. The VSDC role, then, is to provide

the training, evaluate it, and improve the training based on the evaluation. Research and development activities are an essential part of this service not only to improve the service, but also to attract the most highly qualified persons who view this service as a way to enhance their professionalism through research and publication. Therefore, R&D should be included in the funding allocation for this component. Preservice funding is not intended to be used to support other on-campus credit-bearing courses.

Supervision

First- and second-year personnel can benefit greatly from supervision by experienced university vocational teacher educators. The transition from the role of worker or student to the real world of teaching can be greatly facilitated by providing an experienced university person who is both current on pedagogy and experienced in teaching in the appropriate vocational service area. The needs of non-degreed teachers should be given special emphasis.

The role of SDVE is to identify new teachers and to provide VSDCs with this information. The VSDC role, then, is to provide supervision, evaluate it, and improve it. Research and development activities are an essential part of this service not only to improve the service, but also to attract the most highly qualified persons who view this service as a way to enhance their professionalism through research and publication. Therefore, R&D should be included in the funding allocation for this component.

Pedagogical Update

New teaching methods and theories need to be disseminated among vocational personnel. This is of special importance as the population of vocational personnel at the secondary school level matures (i.e., stays in the profession longer). This activity could take the form of workshops, seminars, newsletters, or university courses taken off-campus to where the need for the course exists. This could also include courses required for re-certification, in which case the funding allocation would cover only the costs not covered by participants' tuition.

SDVE will be responsible for conducting a needs assessment of local education agency (LEA) pedagogical update needs. The State Council for Vocational Education Personnel Development will work with SDVE staff to prioritize needs. VSDCs will be responsible for coordinating and providing services.

Information obtained regarding pedagogical needs can be used not only for update of personnel already in the field in secondary schools, but also to revise, update, and create university courses.

Technological Update

Because vocational education must remain relevant to current business/industry practices, it is imperative that vocational personnel keep up-to-date on new technology. This activity could take the form of teacher attendance at equipment vendor seminars, customized workshops, newsletters, training films distributed to LEAs, exchanges with business/industry personnel, or university courses, to give but a few examples. Even if LEAs do not have the resources to obtain new equipment, their vocational personnel should still be acquainted with new machinery and innovative practices in business and industry.

The role of SDVE is to conduct a needs assessment of LEAs and to survey selected businesses and industries. The information gained from the needs assessment and the business and industry survey comprises the data for decisions regarding the technological subjects to be addressed. SDVE will meet with the council to discuss methods and possible providers of technological update. The range of offerings of technological update activities will be presented to the LEAs. LEAs can select the activities in which they wish personnel to participate. Each LEA will be entitled to a specific number of dollars to be used in this manner; however, the funds will go directly to the service provider from SDVE, or, if the LEA chooses to provide the activity, funding can go to the LEA.

Informational Update

Informational update differs from pedagogical update in that it deals with more general types of information, for example, new federal legislation or thrusts such as individualized education plans (IEPs), displaced homemakers, and so forth. The SDVE is responsible for selecting the information to be presented. SDVE staff such as state supervisors have a major role in sharing this information with local vocational educators. The SDVE may, however, engage the VSDCs in service delivery. This information can be disseminated, for example, via seminars, newsletters, teleconferences, or university courses delivered off-campus. In the latter case, if university courses are taken off-campus, only the costs not covered by participants` tuition would be covered by the funding allocation.

Skills Testing

Some vocational teacher degree candidates need to have their level of technical skill evaluated, as do some non-degreed teacher candidates. This, traditionally, has been done through the administration of National Occupational Competency Testing Institute (NOCTI) tests or similar tests by university personnel. There may be other options for determining skill proficiency.

The role of the SDVE is to determine who requires skill testing and to send them to the VSDC in the appropriate region. The role of VSDCs is to conduct the testing.

Curriculum Development and Dissemination

SDVE has a long history of supporting curriculum development and dissemination to meet statewide needs. Although one might consider this activity to be original curriculum development, the intent of this model does not preclude such cost-efficient activities as purchasing, updating, and adapting existing curriculum, or providing media assistance to curriculum development efforts of SDVE or LEA staff. The curriculum development activity can most efficiently and effectively be conducted if centralized at one university.

The role of the SDVE in this activity is to conduct a needs assessment. The data gained from the needs assessment, plus input from PRIDE reviews, state or federal thrusts, university teacher educators, and professional education organizations, will be used to determine the curriculum development needs. SDVE will prioritize the needs. The role of the VSDC which has responsibility for curriculum development will be to respond appropriately, disseminate information about the available curricula, and make them available for sale.

Research and Development

Although research and development activities are seen as an integral part of some of the components (preservice and supervision), the need for research and development in vocational education extends far beyond these two components. Therefore, all Ohio universities and other appropriate agencies will be eligible to compete for R&D allocations that are not tied to the pre-service and supervision components.

The role of SDVE will be to issue RFPs and to consider concept papers from the field. Proposals funded should not be constrained by time; an R&D effort could take 3 months up to a year or more, depending on the nature of the topic to be investigated.

The following table (table 5) describes the roles and responsibilities of SDVE, VSDCs, and LEAs for each of the 8 services. This summary highlights the previous discussion of role provision.

TABLE 5

ROLES AND RESPONSIBILITIES
MODEL D

Service Activity	State Division of Vocational Education	VSDC/Other Universities	LEA
Preservice	Determines who needs this assistance and assigns the persons to VSDC's for training	Provides basic teaching skills training and conducts R & D on the impact of this training	Cooperate with state division and VSDC to ensure that appropriate staff receive this training
Supervision	Identifies where new teachers are located and provides this information to the VSDC	Provides supervision to first and second-year teachers and conducts R & D on the impact of this training	Allows coordination between university faculty providing supervision and LEA administrative staff through discussions of individualized goals and plans for new teachers so that in-house support can be provided
Pedagogical update	Conducts a periodic needs assessment of LEA's and prioritizes pedagogical update needs in conjunction with state council	Co-determines priorities with state staff via state council. Operates workshops, seminars, newsletters on formal courses, etc.	Provides input through peridic needs assessment and LEA representatives in state council Encourages instructional and other staff to participate in planned activities
Technological update	Conducts a periodic needs assessment of LEA's Disseminates information on staff development options to LEA's	Along with LEA's and business and industry, provides technological update information and assistance.	Provides input through periodic needs assessment May act as a provider of customized workshops Selects activities provided by universities and business and industry vendors

TABLE 5 (continued)

Service Activity	State Division of Vocational Education	VSDC/Other Universities	LEA
Informational update	Conducts a periodic needs assessment of LEAs Selects the information to be presented Determines which information should be disseminated by universities vis-a-vis state supervisory staff	Disseminates selected information via seminars, newsletters, teleconferences, off-campus courses, etc.	Provide input through periodic needs assessment
Skills testing	Determines who requires the testing	Conducts skills tests of certain teacher candidates	Cooperates with state division and VSDC
Curriculum Development and Dissemination	Prioritizes curriculum development needs based on needs assessment	One university coordinates development or other activities such as purchasing, updating, media assistance plus dissemination	May be involved in joint curriculum development with state staff or curriculum development center
Research and Development	Issues RFPs; considers field-initiated concept papers	Eligible to compete for R & D funds or to offer concept papers	Eligible to compete for R & D funds or to offer concept papers

Process Concerns

A key activity for statewide planning under this model is a comprehensive, multilevel needs assessment to be conducted during the planning cycle prior to the beginning of the multiyear period. The needs assessment should be coordinated by SDVE staff, with possible design assistance from a university or universities. The needs assessment should address the perceived professional development needs of vocational instructors and support staff. In addition to reporting professional development needs, the assessment should also provide data on the types and frequency of methods being used for staff development, such as summers working in industry, graduate coursework, and attendance at manufacturers' institutes.

Data gathered via the needs assessment will be supplemented with information obtained from PRIDE reviews and informal surveys of selected businesses and industries. These data, then, will provide the state staff with information needed to select the themes or priority topics to receive the main focus of attention for the multiyear period.

The State Council for Vocational Education Personnel Development, which will consist of the VSDC coordinators, at least one LEA representative from each region, and SDVE liaison staff, will meet before the start of the planning or budget year to establish priorities for the year's activities for which the VSDCs are responsible. Through joint discussion and review of the data, general priorities for activities during the year will be set. The priorities will be general enough to allow flexibility, yet clear enough to fulfill the federal mandates.

Concurrently, SDVE staff will be sifting through the data for information regarding technological update needs. Based on LEA-perceived needs (the needs assessment plus PRIDE review data) and the changing needs of business and industry (survey of selected businesses and industries data), SDVE will prepare a list of activities it is willing to sponsor. The LEAs may select activities from this list or, alternatively, develop proposals for customized technological update activities and submit these proposals to SDVE for possible funding.

More detailed planning of activities will take place as each VSDC prepares its proposal and budget for the year. VSDCs will be encouraged to use planning advisory councils comprised of representatives from LEAs and business and industry. Similarly, LEAs will be required to submit brief proposals for technological update activities that they are planning for the year and likewise be encouraged to use advisory councils.

The ideal VSDC contract format is a multiyear arrangement with provisions for annual renewal and negotiation of activities.

To qualify for VSDC funding, an institution or consortium of institutions would have to agree to the following:

- To provide undergraduate teacher preparation in at least four vocational service areas during the multiyear period. A staff with varied service area expertise will foster a generic approach, where appropriate, to service provision, which is one of the key advantages of a VSDC.
- To maintain the full-time equivalent instructional staff level in vocational education during the multiyear period.
- To provide at least four of the seven activities reserved for universities in this model. These four activities must include preservice, supervision, and pedagogical update.
- To defend its decision to use or not use a consortium approach. Consortia are to be encouraged in situations where (1) no single university within that region has a comprehensive program of vocational personnel preparation, (2) where geography or distance limits the ability of a single institution to effectively serve all clients in a region, or (3) where unique strengths of multiple institutions can be jointly utilized.

There are regions of the state of Ohio where a consortium approach will be required because there are no universities with comprehensive vocational programs in that region.

The intent of the multiyear working agreement and comprehensive activity base would be to foster relatively stable funding for each of the centers. Any major changes occurring in funding levels would be due to a center's decision to add or drop a component of activity. If possible, the multiyear working agreement should coincide with the cycle for the state plan for vocational education.

There are at least two contractual options for funding the technological update component of this model, in which LEAs choose the providers. One approach would be to operate the activity on an entitlement basis. Rather than handling the funds directly, the LEA would choose a service provider who would be reimbursed by SDVE after evidence of performance was provided. This approach would work well in situations such as the LEAs sending teachers to a packaged training program run by a vendor. Another option would be to award minor grants to LEAs or consortia who are planning customized training experiences for their staff. This approach would work best in situations where packaged vendor training was unavailable or too narrowly specified. An example might be an institute on microelectronics where representatives of several firms or university faculty could present a workshop. Another example might be an LEA-industry staff exchange program.

Accountability on an annual basis could be accomplished by various means depending on the type of funded institution. For VSDCs, interim progress reports and annual final reports would be required. Because of the large dollar amounts being invested per

institution, SDVE might commission a third-party review of each VSDC, to occur during the middle year of the multi-year contract. This review, to be provided by an impartial organization, will examine the impact and efficiency of the center. Corrective action could then be taken to deal with any problems discussed during the review. Failure to make corrections within the next year will disqualify the VSDC from rebidding for the problematic component activity. Non-VSDC institutions will be required to submit final reports on R&D activities. LEAs will be required to submit a brief report on any customized activity and to certify staff participation in any activities where the SDVE funded the provider directly, such as a vendor.

Unique Features of Models A, B, C, and D Compared With Current Practices

To better understand Models A, B, C, and D, it will be useful to compare and contrast the unique features of each model with the current practices in the state of Ohio. The accompanying table depicts the essential elements of the models. As the reader will observe, Model D was explicitly designed to incorporate elements from the other three models.

TABLE 6

COMPARISON OF LINKAGE MODEL FEATURES
WITH CURRENT PRACTICES

Features	Current Practices	Model A	Model B	Model C	Model D
Use of generic approach to vocational education where appropriate		X	X	X	X
Multiyear basis for funding	X	X	X	X	X
Major staff development provision role for state universities	X	X	X	X	X
Universities encouraged to concentrate resources in a center-based approach				X	X
LEAs have a coordination/provision role and may receive staff development funds		X			X
Coordinating council with state division, LEA and university representatives facilitates decision-making					X
Comprehensive multi-level needs assessment provides data input for planning		X		X	X
Funding recipients provide state division with accountability reports		X	X	X	X

FURTHER CONSIDERATIONS AND RECOMMENDATIONS

Implementation Recommendations

In order to ensure the success of the linkage model, a number of decisions need to be made and procedures established during the interim period before the proposed activities are implemented. The following recommendations address the needs identified by the project staff:

- SDVE should establish a transition period of at least 1 year before requiring implementation of VSDCs. Because the new structure is different from what exists, ample time should be allotted to give institutions time to communicate and plan activities. During the transition period, funding should continue as before.

- Teacher educators should be given an important role in the implementation activites. Based on information from other states, involving teacher educators up front can contribute to an improved relationship and a creative leadership. By using early involvement, SDVE staff can learn (1) how teacher educators react to the models and whether they can suggest improvement and (2) how university administrations will react to the proposed changes.

- Universities and SDVE should communicate regarding the current status of programs and services for vocational education staff development. Knowledge of the current base of activities, especially those directed toward inservice educators, will enhance informed judgments. The information will be especially useful to (1) pinpoint potential exemplary programs and approaches that could be extended statewide and (2) demonstrate the capacity of the various institutions for delivery of services.

- SDVE should consider some incentives to ensure the commitment of the universities to the proposed activities. For example, the following items could be proposed as part of the VSDC:

  - Extension courses to qualify for partial funding, such as courses toward recertification offered at remote locations (this is suggested under the pedagogical and informational update services description)

  - Paculty development funds on a faculty headcount basis to institutions agreeing to propose for a VSDC. Mainly, this would be funds to encourage travel and professional meetings and conferences.

- Clerical support staff to be provided at least in part, through the VSDC contract (this may seem a minor point but is really very important to conducting a smooth-running operation).

o SDVE should consider contacting other states that have reorganized the linkage relationship. Useful advice on implementation procedures and contracting techniques could be gained from states that have implemented a center-based approach or utilized a coordinating council. Both teacher educators and SDVE representatives could be contacted and brought to Ohio or visited on-site.

o SDVE should conduct a comprehensive multilevel staff development needs assessment during the transition period. The planning during this time will be enhanced by the availability of data on the professional needs and current practices of Ohio vocational educators. The information resulting from this assessment should be broadly shared within the state, preferably prior to issuing RFPs for VSDCs.

o During the transition period, SDVE staff should assemble information on technological update opportunities. In addition to information gained via the needs assessment, input from local educators and business and industry should be obtained regarding vendor workshops, potential industry-education exchanges and other staff development opportunities. The state will disseminate this information to LEAs as suggested activities for state-funded technological update experiences.

o SDVE should designate at least 50 percent of one SDVE staff person's time to maintain the linkage relationship with universities. Interagency coordination is fostered by having staff liaison roles within the involved agencies. It is not clear from the current SDVE organizational chart whether such a role currently exists in Ohio. The VSDC counterpart would be the VSDC coordinator.

o SDVE should study the staff development roles and activities of service area supervisory staff. The universities are being asked to focus more on inservice activites. But, inservice has also been, to varying degrees, part of the job of state staff. In order to prevent conflict and duplication of effort, the staff development role of the state supervisor or consultant needs to be clarified.

Conclusion

Having presented a comprehensive model and implementation guidelines, it is tempting to predict a smooth, comfortable adjustment of the universities and SDVE to the recommended mode of operation. However, in practice, most new models or systems encounter some difficulties in implementation. The State Division of Vocational and Career Education may expect to encounter some of the following reactions:

- Opposition to the model from institutions that fear a reduction in funding
- Resistance (by either university or SDVE staff) to the increased administrative responsibilities that accompany the accountability requirements
- Resistance to changing roles for service initiation and coordination

All of these reactions are natural instances of what can be described as resistance to change. However, the bottom line for Ohio is that change <u>needs to occur.</u> Both the narrowing federal agenda and the current Ohio context for vocational education staff development suggest that the historical administrative pattern and procedures for vocational education-university relationships are no longer appropriate. Many other states have had to deal with these issues. It is now the appropriate time for Ohio to address and act upon these concerns.

Given that change must occur and that change generates negative reactions, it is helpful to review some of the benefits and some positive reactions to the proposed approach. Following are positive implications of the recommended model:

- Increased visibility for vocational education departments at the universities through the unifying effect of the VSDC mechanism.
- Greater funding stability for those universities involved in long-term relationships with SDVE
- Increased attention on activities designed for inservice educators and their continuing staff development needs
- New opportunities for staff development options at the local level where program improvement resources have often been scarce
- Improved accountability for staff development funds
- Enhanced communication between the state division and universities through the State Council for Vocational Education Personnel Development

The proposed model, accompanied by careful communication and interorganizational planning, will be viewed by state staff, universities, and local schools as a reasonable means of bringing about the necessary changes. This approach will help solve the problems of vocational education in Ohio and clarify and, thereby improve, the long-standing collegial university and SDVE relationship.

APPENDIX A

ADVISORY PANEL MEMBERS
Ohio Vocational Education/University Linkage Project

Dr. Harold Carr, Superintendent
Great Oaks Joint Vocational School District
3254 East Kemper Road
Cincinnati, Ohio 45241

Dr. Martin Essex, Executive Director
Ohio Advisory Council for Vocational Education
750 Brooksedge, Suite 105
Westerville, Ohio 43081

Dr. Joseph Helbling, Coordinator
University Council for Vocational Education in Illinois
Illinois State Board of Education
Department of Adult and Technical Education
100 North First Street
Springfield, Illinois 62777

Dr. Gail Henderson, Supervisor
Ohio Department of Education
Vocational and Career Education
65 South Front Street, Room 907
Columbus, Ohio 43215

Dr. Wilbur Miller, Associate Dean
College of Education
109 Hill Hall
University of Missouri-Columbia
Columbia, Missouri 65221

Dr. Lila Murphy, Chairperson
Department of Individual and Family Studies
College of Human Resources
University of Delaware
Newark, Delaware 19711

Dr. Jerry Shuck, Superintendent
Cuyahoga Valley Joint Vocational School District
8001 Brecksville Road
Brecksville, Ohio 44141

*Dr. Robert E. Taylor, Executive Director
National Center for Research in Vocational Education
Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

* Chairperson of Advisory Panel

APPENDIX B

MODEL RATING CRITERIA

	Rating				
	Low				High
	1	2	3	4	5

Responsiveness to state and federal priorities
To what degree will the model leverage state and federal priorities?

Responsiveness to state-wide needs
How well will the model adapt to changing priorities and needs identified by the SDVE staff?

Responsiveness to local needs
How well will the model identify needs of and serve vocational teachers, counselors, and administrators in different geographic areas of the state, in schools of varying sizes, and among the different vocational service areas?

Mutual incentives
How well will the model, including its funding process, provide for mutual incentives to the universities, their faculty, and the state division of vocational education?

Faculty initiative
How well will the model foster creativity within the constraints of control?

Accountability
How well will the model serve the state division's need to monitor and justify the flow of funds?

Capacity availability
How well will the model provide for the continuing availability of professional expertise?

Criteria	Rating				
	Low				High
	1	2	3	4	5
Political acceptance How likely is it that the model will be accepted and supported by the various interactive agencies?					
Collaborative relationships How well will the model promote collaboration between the university and the state division and significant others?					
Appropriate division of responsibilities How well will the model identify and provide for the most appropriate assignment of duties?					
Cost effectiveness How well will the model provide for the delivery of services in a cost-effective manner and eliminate duplication of services?					
Feasibility of administration How well will the model distribute the administrative burden?					
Use of existing university strengths and resources How well will the model use existing university resources outside the vocational teacher education department?					
Corrective feedback How well will the model use evaluation data to improve the system and services?					
University commitment How well will the model use federal and state funds to increase the commitment of universities to supporting vocational education personnel preparation and development?					

Criteria	Rating				
	Low				High
	1	2	3	4	5
Influence on perceived professionalism How well will the model enhance the professional acceptance and tenure of vocational teacher educators, administrator educators, and counselor educators within the university community?					
Comprehensiveness How well will the model respond to the total vocational education community and cause collaboration among the various service areas and among institutions of higher education?					
Local educator needs How well will the model address the needs of local vocational teachers, administrators, and counselors?					

APPENDIX C

MODEL A

Overview

This model provides for the delivery and implementation of eight basic services to be coordinated or provided mainly by state universities and local education agencies (LEAs) with the State Division of Vocational and Career Education (SDVE) initiating many of the activities. The services are (1) preservice, (2) supervision, (3) pedagogical update, (4) technological update, (5) informational update, (6) skills testing, (7) curriculum development and dissemination, and (8) research and development. Input is provided by SDVE, universities, professional organizations, business and industry, and LEAs. In addition, universities administer the salaries and benefits of university employees who maintain offices at the State Division of Vocational and Career Education.

The distribution of control is split among universities, LEAs, and SDVE. The determination of roles was made based upon the unique strength of these parties. Although universities provide the bulk of the services, universities do not initiate these services. The responsibility for initiation lies with the SDVE and LEAs. Coordination of services and determination of priority topics lie mainly with the SDVE and universities.

The major difference between this model and current practices is that universities act mainly as service providers-coordinators and not as initiators, although universities would play a role in helping SDVE determine priorities. This model differs from both other models in that LEAs are given the responsibility of selecting the service provider for technological update and managing that budget.

Because some of the LEAs are small, LEAs may act in consortia. This would allow for a more cost-efficient use of funds and provide a sufficient number of people to make some activities feasible.

Services and Role Description

This model consists of eight basic services deemed essential to the maintenance of a professional, up-to-date cadre of vocational educators:

- Preservice
- Supervision

- o Pedagogical update
- o Technological update
- o Informational update
- o Skills testing
- o Curriculum development and dissemination
- o Research and development

The remainder of this section describes services, offers examples of activities, and defines roles and responsibilities for the eight services.

Preservice

The major preservice activity deemed essential in vocational teacher education has as its primary objective developing the competence of nondegreed teachers to the point of certification. Currently, this activity takes the form of basic teaching skills workshops. Although this is an appropriate activity, other means of providing the skills necessary to prepare nondegreed persons to enter the teaching profession may be developed.

The SDVE role in this activity would be to identify those persons requiring this assistance and to assign them to the appropriate university(s) for training. The university role, then, would be to provide the training, evaluate it, and improve it based on the evaluation. For this reason, research and development (R&D) activities are seen as an essential part of this component and should be included in the funding allocation. Preservice funding is not intended to support other on-campus credit-bearing courses.

Supervision

First- and second-year personnel can benefit greatly from supervision by experienced university vocational teacher educators. The transition from the role of worker or student to the real world of teaching can be greatly facilitated by providing an experienced mentor who is both current on pedagogy and experienced in teaching in the service area. The needs of nondegreed teachers should be given special emphasis in this respect.

The role of SDVE would be to identify where new teachers are located. The role of the university(s), then, is to provide supervision for these individuals, evaluate it, and improve it. In order to do so, research and development activities are seen as an essential activity of this component and should be included in the funding allocation. The R&D results could be used not only to improve supervision, but also to improve teacher education courses at all Ohio colleges and universities.

Pedagogical Update

New teaching methods and theories need to be disseminated among vocational personnel. This is of special importance as the

population of vocational personnel at the secondary school level matures (i.e., stays in the profession longer). This activity could take the form of workshops, seminars, newsletters, or university courses taken off-campus to where the need for the course is. In the latter case, the funding allocation would cover only the cost of travel and per diem of the instructor or other costs not covered by participants' tuition.

The role of SDVE would be to conduct a formal needs assessment during the planning cycle for each multi-year operation. Data gained from the needs assessment plus input from professional organizations and PRIDE reviews would comprise the basis for decisions regarding the pedagogical topics to be addressed. The final decision regarding topics would be made in a meeting of state staff and university representatives. Universities would provide the actual pedagogical update. The information gained regarding pedagogical needs could be used not only to update personnel already in the field in secondary schools, but also to revise, update, or develop university courses.

Technological Update

Because vocational education must remain relevant to current business-industry practices, it is imperative that vocational personnel keep up-to-date on new technology. This activity could take the form of workshops, newsletters, training films distributed to LEAs, personnel exchanges with business and industry, and university courses, to give but a few examples. Even if LEAs do not have the resources to obtain new equipment, their vocational personnel should still be acquainted with new machinery and innovative practices in business and industry.

The role of SDVE is to conduct a formal needs assessment during the planning cycle of each multiyear agreement. The data gained from the needs assessment plus input from professional organizations, PRIDE reviews, universities, and selected businesses or industries would comprise the basis for decisions regarding the technological subjects to be addressed. The final decision regarding topics would be made by SDVE staff. The role of LEAs or LEA consortia would be to select from a list of approved topics and service providers appropriate activities for their vocational personnel, to request funding, and to oversee the conduct of activities.

Universities would need to be kept current, also, on new machinery and innovative practices in the various service areas. For this reason, SDVE would have to maintain communication with the universities regarding technological update and provide opportunity for university staff to participate.

Informational Update

Informational update differs from pedagogical update in that it deals with more general types of information, for example, new federal legislation/thrusts such as individualized education plans, displaced homemakers, and so forth. This information could be disseminated via seminars, newsletters, teleconferences, university courses delivered off-campus, to give but a few examples. In the latter case, if university courses are taken off-campus, only travel, per diem of the instructor, or other costs not covered by the participants' tuition would be covered by the funding allocation.

The role of SDVE would be to conduct a formal needs assessment during the planning cycle for each multi-year agreement. The data gained from the needs assessment plus input from professional organizations, SDVE, and universities would comprise the basis for decisions regarding the informational topics to be addressed. The final decision regarding topics would be made in a meeting of state staff and university representatives. The role of the universities would be to present the information. In order to keep university courses current, the funding allocation could also include the costs of curriculum development or revision to incorporate informational update topics.

Skills Testing

Vocational teacher degree candidates sometimes need to have their level of technical skill tested as do some non-degreed teacher candidates. This, traditionally, has been done by university personnel administering National Occupational Competency Testing Institute (NOCTI) tests, or similar tests. Other options for determining skill proficiency may exist.

The role of the universities would be to test their teacher degree candidates, plus any persons undergoing the pre-service basic teaching skills training about whom there is question regarding their technical skill. The role of SDVE, then, would be fund a portion of a teacher educator's salary for coordinating and administering the skill test plus provide the travel and per diem associated with this activity.

Curriculum Development and Dissemination

SDVE has a long history of supporting curriculum development and dissemination to meet statewide needs. Although one might consider this activity to include only original curriculum development, the intent of this model does not preclude such cost-efficient activities as purchasing, updating, or adapting existing curriculum. The curriculum development activity can most efficiently and effectively be conducted if centralized at one university.

The role of SDVE in this activity would be to conduct a formal needs assessment during the planning cycle for each multi-year agreement. The data gained from the needs assessment, from PRIDE reviews, and from statewide or federal thrusts would determine the curriculum to develop or revise. The role of the university with the responsibility for curriculum development would be to develop the materials, and disseminate information about the materials and make them available for sale.

Research and Development

Although research and development activities are seen as an integral part of some of the services (preservice and supervision), the need for research and development in vocational education extends far beyond these two areas. Therefore, all Ohio universities and other appropriate agencies would be eligible to compete for R&D allocations.

The role of SDVE would be to issue requests for proposals and also to consider concept papers from the field. Proposals or concept papers funded would not be artificially constrained by time; an R&D effort could take 3 months or extend over a year, depending on the nature of the topic to be investigated. The role of the university, then, would be to conduct the R&D.

Planning Concerns

The beginning of the planning cycle in this model features a comprehensive statewide needs assessment conducted by SDVE. Information gained from the needs assessment, professional organizations, PRIDE reviews, universities, and selected businesses and industries would help the state division determine statewide priorities for pedagogical, informational, and technological services to LEAs.

Based on this information, the state director, state staff, and representatives from universities would develop a list of priority topics for the various inservice activities. The list would help state staff evaluate the appropriateness of activities proposed by the LEAs or LEA consortia and the universities.

The contracting process under this model could become very complex, with funding flowing through LEAs, universities, and, potentially, other providers. There are ways, however, to reduce the complexity and improve the efficiency of the approach. For example, universities could be offered the opportunity to enter into multiyear contracts to provide the basic teaching skills workshops, new teacher supervision, pedagogical workshops, informational seminars, and skills testing activities. The contractual arrangements for these activities would thus be parallel to those of Model B.

On the other hand, the technological update component of the model provides direct funding to LEAs, which are given a broad choice of service providers. The SDVE's coordination role in this component would include the assembly and dissemination of information on topics, people, and materials useful for technological update. The SDVE will fund LEAs or LEA consortiums for mini-grants to sponsor local events or to assist teachers in attending company-sponsored training experiences. LEAs or LEA consortiums will submit brief proposals. The SDVE would fund LEAs on a per-teacher basis, including provision of substitute teachers. A goal could be set by SDVE of serving a certain percentage of active teachers each year in this program, or of determining the maximum number of mini-grants to be awarded in a year, with the allocation on a first-come, first-served basis.

The universities would report annually on each of the contract components. The reports would describe the number and type of individuals served and provide evaluation data on group activities. Since several components include an integrated R&D activity, the reports could potentially provide qualitative as well as quantitative information on program operations. Unused funds could be carried over to the next contractual year. Failure to meet SDVE goals for the university-operated components would result in placing the university on a probationary basis for a year. Continuing problems with unfulfilled obligations would result in discontinuance of funding for the particular contract component.

Accountability for LEAs would be verified based on evidence that the activities were held and attended as planned. If reports of planned activities were not submitted by the due date or if the activities were not conducted, the money budgeted for those activities would be refunded to the SDVE.

Implementation Concerns

The implementation of this model raises several concerns. First, there are funding implications. Unless the state is willing to spend more on staff development as a whole, the amount of funds available to the universities will decrease. Under the technological update component, a large part of the funds may flow to providers other than universities, such as private business and industry. If this happens, the universities should be allowed a transition period to examine their bases of funding and secure alternate sources of support. After moving into the new mode of operations, the funding amounts from the state division should be relatively stable for the participating institutions.

Operation of the programs involving LEAs will require increased communication between SDVE, universities, and LEAs. For example, it is unlikely that LEAs would take advantage of customized seminars, workshops, or other assistance from the universities unless they were made aware of these services. Similarly, since LEAs are not accustomed to receiving staff

development funds from the SDVE, the guidelines and administrative processes for the technological update component will need to be carefully considered and clearly communicated. SDVE would have to take an active role in the dissemination about the new program and activities.

Strengths, Weaknesses, and Benefits

Every system has inherent strengths and weaknesses for the institutions involved as well as benefits for the community at large. The perceived strengths and weaknesses for LEAs, universities, and SDVE are set forth in Table C-1.

TABLE C-1

PERCEIVED STRENGTHS AND WEAKNESSES OF MODEL A

Institution/ Agency	Strengths (Pros)	Weaknesses (Cons)
LEAs	LEAs will have a greater role in initiating technological update and selecting service providers for this activity. LEAs would receive more diversified services on a more consistent basis. Professional organizations would provide indirect LEA input; needs assessment would provide direct LEA input.	More paperwork and reporting responsibilities would be required.
Universities	All state universities with accredited vocational personnel preparation programs would be eligible to compete for R&D funds. Capacity maintenance may benefit from multi-year contracts for some activities.	Universities would have limited roles in technological update. Individual departments might lose some autonomy because of a generic approach to providing some services. More paperwork and reporting responsibilities would be required. Less discretionary use of monies would be possible.
SDVE	SDVE would have better accountability for activities and money spent. Greater opportunity to target activities to federal priorities and statewide needs would be available.	More paperwork and administrative processing requirements would be needed.

APPENDIX D

MODEL B

Overview

This model provides for the delivery and implementation of eight basic services to be conducted by state universities currently receiving federal funds from the State Division of Vocational and Career Education (SDVE). The services are (1) preservice, (2) supervision, (3) pedagogical update, (4) technological update, (5) informational update, (6) skills testing, (7) curriculum development and dissemination, and (8) research and development. The extent to which a specific university would be involved in the delivery of services would depend upon its capacity to provide those services. Oversight and input would be provided by SDVE. Input would also be provided by LEAs.

University staffing could be dealt with in a flexible manner. The use of personnel should be based on the need of university staff to balance their duties between teaching, service, and research and development to enhance their opportunities for professional growth and academic advancement. Based on the extent of services for which a university is responsible, a percentage of a staff person's time should be supported to provide for coordination of activities. In addition, universities would administer the salaries and benefits of university employees who maintain offices at the State Division of Vocational and Career Education.

State universities currently receiving federal funds from SDVE were selected for the major role for a number of reasons. One reason is the critical mass of expertise developed through years of salary reimbursement funding. Others include the collection of resources and the administrative systems in place at universities.

This model differs from current practices in that it provides for clearer specification of activities and greater assurance that goals will be met. This model differs from the other models in that it most closely reflects current practices.

Services and Role Descriptions

This model consists of eight basic services deemed essential to the maintenance of a professional, up-to-date cadre of vocational educators:

- Preservice
- Supervision
- Pedagogical update
- Technological update

- o Informational update
- o Skills testing
- o Curriculum development and dissemination
- o Research and development

The extent to which any university would be involved in the eight services depends upon that university's desire and capacity to provide services.

The remainder of this section describes services, offers examples of activities, and defines roles and responsibilities for each of the eight services.

Preservice

The major preservice activity deemed essential in vocational teacher education is one which will develop the competence of non-degreed teachers to the point of certification. Currently, this activity takes the form of basic teaching skills workshops. Although this is an appropriate activity, other means of providing the skills necessary to prepare non-degreed persons to enter the teaching profession may be developed.

The SDVE role in this activity would be to identify those persons requiring this assistance and to assign them to the appropriate university(s) for training. The university role, then, would be to provide the training, evaluate it, and improve it based on the evaluation. For this reason, research and development activities are seen as an essential part of this service and should be included in the funding allocation. Pre-service funding is not intended to support other on-campus credit-bearing courses.

Supervision

First- and second-year personnel can benefit greatly from supervision by experienced university vocational teacher educators. The transition from the role of worker or student to the real world of teaching can be greatly facilitated by providing an experienced mentor who is both current on pedagogy and experienced in teaching in the service area. The needs of non-degreed teachers should be given special emphasis in this respect.

The SDVE role would be to identify where new teachers are located. The role of the university(s), then, is to provide or provide for supervision of these individuals, evaluate it, and improve it. In order to do so, research and development activities are seen as an essential activity of this component and should be included in the funding allocation. The results of this R&D could be used not only to improve supervision, but also to improve teacher education courses at all Ohio colleges and universities.

Pedagogical Update

New teaching methods and theories need to be disseminated among vocational personnel. This is of special importance as the population of vocational personnel at the secondary school level matures (i.e., stays in the profession longer). This activity could take the form of workshops, seminars, newsletters, or university courses taken off-campus to where the need for the course is. In the latter case, the funding allocation would cover only the cost of travel and per diem of the instructor or other costs not covered by participants' tuition.

The role of SDVE would be to obtain input from LEAs regarding LEA-perceived needs. State staff would then meet with a council of university representatives to determine the topics to be addressed.

The information gained regarding pedagogical needs could be used not only to update personnel already in the field in secondary schools, but also to revise, update, or develop university courses.

Technological Update

Because vocational education must remain relevant to current business-industry practices, it is imperative that vocational personnel keep up-to-date on new technology. This activity could take the form of workshops, newsletters, training films distributed to LEAs, personnel exchanges with business/industry, or university courses, to give but a few examples. Even if LEAs do not have the resources to obtain new equipment, their vocational personnel should still be acquainted with new machinery and innovative practices in business and industry.

The role of the LEA would be to keep aware of new machinery and practices in business and industry. This could be accomplished through the input of advisory councils that each vocational teacher should be using on a regular basis. The role of the SDVE, then, would be to gather this information and meet with a council of university representatives to determine technological update topics and determine ways in which to deliver services. By using universities to deliver or coordinate the delivery of services, the ability of university staff to remain current in the field will be facilitated.

Informational Update

Informational update differs from pedagogical update in that it deals with more general types of information, for example, new federal legislation and thrusts such as individualized education plans (IEPS), displaced homemakers, and so forth. This information can be disseminated via seminars, newsletters, teleconferences, and university courses delivered off-campus, to

give but a few examples. In the latter case, if university courses are taken off-campus, only travel, per diem of the instructor, or other costs not covered by participants' tuition would be covered by the funding allocation.

The SDVE and university representatives would meet to determine appropriate topics for informational update. The role of the universities would be to present the information in a manner they and the SDVE find appropriate.

The funding allocation could also include the costs of curriculum development or revision to incorporate informational update topics.

Skills Testing

Vocational teacher degree candidates sometimes need to have their level of technical skill tested, as do some non-degreed teacher candidates. This, traditionally, has been done by university personnel administering National Occupational Competency Testing Institute (NOCTI) tests or similar tests. Other options for determining skill proficiency may exist.

The role of the universities would be to test their vocational teacher degree candidates plus any persons undergoing the basic teaching skills training about whom there is question regarding their technical skill. The role of SDVE, then, would be to fund a portion of a teacher educator's salary for coordinating and administering the skill test plus provide the travel and per diem associated with this activity.

Curriculum Development and Dissemination

SDVE has a long history of supporting curriculum development and dissemination to meet statewide needs. Although one might consider this activity to include only original curriculum development, the intent of this model does not preclude such cost-efficient activities as purchasing, updating, or adapting existing curriculum. The curriculum development activity can most efficiently and effectively be conducted if centralized at one university.

The role of the SDVE in this activity would be to determine, based on PRIDE reviews and statewide and federal thrusts, what curriculum needs to be developed or revised. The role of the university with the responsibility for curriculum development would be to develop the materials, disseminate information about them, and make them available for sale.

Research and Development

Although research and development activities are seen as an integral part of some of the services (preservice and supervision), the need for research and development in vocational

education extends far beyond these two areas. Therefore, all Ohio universities and other appropriate agencies would be eligible to compete for R&D allocations.

The role of the SDVE would be to issue requests for proposals and also to consider concept papers from the field. Proposals or concept papers funded would not be artificially constrained by time; an R&D effort could take 3 months or extend over a year, depending on the nature of the topic to be investigated. The role of the university, then, would be conduct the R&D.

Process Concerns

Planning of the services and activities would be a collaborative effort of the state staff and representatives of the universities. Before the start of the planning or budget year, the state supervisory staff would have reviewed results of PRIDE evaluations and discussed personnel development needs that the staff learned about in their field visits during the year. The state director and staff will use this information to determine activity "targets" for the multiyear period. The targets would be general enough to allow flexibility, yet clear enough to fulfill the federal mandates. An example might be an objective to provide instructors with inservice training on planning educational approaches for adults in need of retraining.

The state director and selected staff would then meet with teacher education representatives from the universities. The university representatives would bring their own suggestions based on meetings within the respective faculties and their own personal contact with local vocational educators during the year. The objective of this meeting would be to develop a consensus on the types of activities to be sponsored and the priorities to be addressed during the year.

The ideal contract format under this model would be a multi-year working agreement, with provisions for annual renewal and negotiation of activities. The multiyear time frame is to coincide with the schedule of the state plan for vocational education. This working agreement would be offered as a master contract for each institution receiving funds, rather than offering contracts to individual teacher education departments. Contracts could include any or all of the services described in Model B. The capacity of each institution would limit the scope of activities. Some universities might choose to provide less than all the activities. If this occurred, then the SDVE would have to be careful that all service areas, activities, and regions were covered.

The contract would have two elements: stable-funded activities and variable-funded activities. The majority of the activities and funds would involve the provision of pedagogical, technological, and informational services to educators. Stability

in funding could be achieved for these activities by specifying level goals for each of the years (e.g., to provide technological update for 20 percent of teachers in a region each year). Because of numbers changing from year to year, both statewide and regionally, the programs of supervision for first- and second-year teachers and basic teaching skills for new non-degreed teachers would have variable funding. The amount of variance in any contract would be small from year to year. Thus, ability to sustain institutional capacity and plan for a multi-year period would exist.

Accountability mechanisms applicable to the model would include participant evaluations along with brief reports on each short-term activity describing the date, content, presenters, and participants. Longer final reports would be required for supervision and basic teaching skills programs, including impact data. At the end of the year, each institution would submit a statistical summary of activities.

Nonachievement of the targeted goals would require an investigation by state staff. In some cases, nonachievement could be caused by factors beyond the control of the university. If so, monies could be carried over into the next year. Problems due to inadequate operation by the contracting institution would result in placing funding for the particular contract component on a probationary status during the next contract year. Continuing problems with unfulfilled obligations would result in discontinuance of funding for the particular contract component.

Implementation Concerns

Changes from the current system would necessitate a transition period of perhaps 1 year during which both universities and SDVE could adjust to new priorities and administrative procedures. During this time, the universities would assess their capabilities to provide the types of services called for in this model. Some institutions, no doubt, have been providing these services on a continuous basis, whereas others have given more attention to undergraduate instruction. Institutions will need to formulate procedures to allow the optional use of rotating tenure-track faculty or a differentiated staffing procedure to carry out the proposed programs.

At the same time, SDVE would need to formulate eligibility criteria for institutions seeking funding for the various activities. For example, it might be desirable to limit some activities to institutions having comprehensive undergraduate programs. Therefore, institutions offering preparation in only one service area would not qualify for those activities. The SDVE would also have to make some hard decisions about funding levels for institutions. The current funding levels, which are based on the historical size of the undergraduate programs, may or may not be proportional to the relative number of LEA staff and

their developmental needs. After a transition year of operating at the accustomed funding levels, some institutions might incur either a reduction or an increase in funding during the first year of the multiyear contracts. In subsequent years, however, the funding should be relatively stable except for possible variations in the level of support for new teacher supervision and basic teaching skills training.

Frequent meetings between university and state staff would be needed during the transition period. Coordination of public relations and communications with LEAs would be fostered by joint planning. Success of the effort would depend on commitment of the institutions involved.

Strengths, Weaknesses, and Benefits

Every system has inherent strengths and weaknesses for the institutions involved as well as benefits for the community at large. The perceived strengths and weaknesses for LEAs, universities, and SDVE are set forth in table D-1.

TABLE D-1

PERCEIVED STRENGTHS AND WEAKNESSES OF MODEL B

Institution/ Agency	Strengths (Pros)	Weaknessess (Cons)
LEAs	LEAs would receive more diversified services on a more consistent basis.	This model would not allow for LEAs to initiate their own options.
Universities	Selected universities would maintain their capacity. Some universities would have the potential to increase their funding level and to build capacity. Universities would have significant input into the design of activities.	Less discretionary use of monies would be allowed. The amount of paperwork and reporting that universities must provide to SDVE would increase. Some universities might experience a decrease in funding level. Individual departments might lose some autonomy because of a generic approach to providing some services.
SDVE	SDVE would receive a greater measure of financial accounting for results achieved. Greater opportunity to target activities to fed-priorities and statewide needs would be present.	No provision is made for a formal, comprehensive needs assessment. Paperwork would be increased.

APPENDIX E

MODEL C

Overview

This model provides for the delivery and implementation of eight basic services to be conducted by university-based vocational staff development centers (VSDCs). These services are (1) preservice, (2) supervision, (3) pedagogical update, (4) technological update, (5) informational update, (6) skills testing, (7) curriculum development and dissemination, and (8) research and development. VSDCs would be responsible for coordinating all services, providing most services, and initiating many services. In addition, VSDC institutions would administer the salaries and benefits of university employees who maintain offices at the State Division of Vocational and Career Education (SDVE).

The concept of a VSDC is not that of a separate, heavily staffed entity. Rather, except for a coordinator and a small clerical staff, the VSDC would use university staff (and others if appropriate) on a consulting or rotating basis. This use of personnel is based on the need of university staff to balance their duties between teaching, service, and R&D to enhance their opportunities for professional growth and academic advancement.

Since VSDCs play such a major role in the initiation, coordination, and provision of activities, a State Council for Vocational Education Personnel Development would be established. The council would consist of the VSDC coordinators and appropriate SDVE staff. The purpose of the council, which would meet on a regular basis, is to ensure that SDVE and VSDCs are in agreement as to the nature, scope, and delivery of services.

Non-VSDC institutions would also have a role in this model. VSDCs could subcontract not only with other VSDCs and VSDC institutions, but also with non-VSDC institutions. Non-VSDC institutions would also be eligible for any special purpose or request for proposal funds that are not directly linked to specific VSDC activities.

This model differs from current practice in that VSDCs assume more responsibility for initiating activities with greater assurance to SDVE that goals are met. This model differs from the other models in that there is more concentration of resources.

Services and Role Description

This model consists of eight basic services deemed essential to the maintenance of a professional, up-to-date cadre of vocational educators:

- o Preservice
- o Supervision
- o Pedagogical update
- o Technological update
- o Informational update
- o Skills testing
- o Curriculum development and dissemination
- o Research and development

The remainder of this section describes services, offers examples of activities, and defines roles and responsibilities for each of the eight services.

Preservice

The major preservice activity deemed essential in vocational teacher education will develop the competence of non-degreed teachers to the point of state certification. Currently, this activity takes the form of basic teaching skills workshops. Allthough this is an appropriate activity, other means of providing the skills necessary to prepare non-degreed persons to enter the teaching profession may be developed.

The SDVE role in this activity would be to identify those persons requiring this assistance and to assign them to the appropriate VSDC for training. The VSDC role, then, would be to provide the training, evaluate it, improve it based on the evaluation, and disseminate the findings to all Ohio colleges and universities with approved vocational teacher education programs. For this reason, research and development activities are seen as an essential part of this component and should be included in the funding allocation. Preservice funding is not intended to be used to support other on-campus credit-bearing courses.

Supervision

First- and second-year personnel can benefit greatly from supervision by experienced university vocational teacher educators. The transition from the role of worker or student to the real world of teaching can be greatly facilitated by providing an experienced mentor who is both current on pedagogy and experienced in teaching in the service area. The needs of non-degreed teachers should be given special emphasis in this respect.

The role of VSDCs would be to identify where new teachers are located and then to provide supervision to these individuals and evaluate, improve it, and disseminate findings regarding the

effort to all Ohio colleges and universities with approved vocational teacher education programs. In order to do so, research and development activities are seen as an essential activity of this component and should be included in the funding allocation. The results of this R&D could be used not only to improve supervision, but also to improve vocational teacher education courses at all Ohio colleges and universities.

Pedagogical Update

New teaching methods and theories need to be disseminated among vocational personnel. This is of special importance as the population of vocational personnel at the secondary school level matures (i.e., stays in the profession longer). This activity could take the form of workshops, seminars, newsletters, or university courses taken off-campus to where the need for the course is. In the latter case, the funding allocation would cover only the cost of travel and per diem of the instructor or other costs not covered by participants' tuition.

The VSDCs will be responsible for conducting a needs assessment of local education agency (LEA) pedagogical update needs. The council would then work with SDVE staff to prioritize needs. VSDCs would then be responsible for coordinating and providing services. The information obtained regarding pedagogical needs can be used not only to update personnel already in the field in secondary schools, but also to revise, update, or create university courses.

Technological Update

Because vocational education must remain relevant to current business-industry practices, it is imperative that vocational personnel keep up-to-date on new technology. This activity could take the form of workshops, newsletters, training films distributed to LEAs, personnel exchanges with business and industry, or university courses, to give but a few examples. Even if LEAs do not have the resources to obtain new equipment, their vocational personnel should still be acquainted with new machinery and innovative practices in business and industry.

The role of VSDCs would be to conduct a needs assessment of LEAs and to survey selected businesses and industries. The information gained from the needs assessment would comprise the basis for decisions regarding the technological subjects to be addressed. VSDCs, then, are responsible for the provision of technological update.

Informational Update

Informational update differs from pedagogical update in that it deals with more general types of information, for example, new federal legislation or thrusts such as individualized education plans (IEPs), displaced homemakers, and so forth. This information can be disseminated via seminars, newsletters, teleconferences, and university courses delivered off-campus. In the latter case, if university courses are taken off-campus, only travel, per diem of the instructor, or other costs not covered by participants' tuition would be covered by the funding allocation.

The role of VSDCs would be to conduct a needs assessment. The data gained from the needs assessment plus input from SDVE regarding state or federal thrusts would comprise the basis for decisions regarding the informational topics to be addressed. The final decision regarding topics would be made in a meeting of state staff and the council. The VSDCs are responsible for the provision of informational update activities. The funding allocation would also include the costs of curriculum development or revision to incorporate informational update topics.

Skills Testing

Vocational teacher degree candidates sometimes need to have their level of technical skill evaluated as do some non-degreed teacher candidates. This, traditionally, has been done through the administration of National Occupational Competency Testing Institute (NOCTI) tests or similar tests developed by university personnel. There may be other options for determining skill proficiency.

The role of VSDCs will be to test teacher degree candidates plus any persons undergoing the preservice basic teaching skills training about whom there is question regarding their technical skill. The role of SDVE, then, would be to fund a portion of a teacher educator's salary for coordinating and administering the skills test plus the travel and per diem associated with this activity.

Curriculum Development and Dissemination

SDVE has a long history of support of curriculum development and dissemination to meet statewide needs. Although one might consider this activity to include original curriculum development, the intent of this model does not preclude such cost-efficient activities as purchasing, updating, or adapting existing curriculum. The curriculum development activity can most efficiently and effectively be conducted if centralized at one university.

The role of VSDCs in this activity would be to conduct a needs assessment. The data gained from the needs assessment, from PRIDE reviews, and from statewide and federal thrusts would

determine the curriculum to be developed or revised. SDVE would prioritize the needs. The role of the university with the responsibility for curriculum development would be to develop the materials, disseminate information about the materials and make them available for sale.

Research and Development

Although research and development activities are seen as an integral part of some of the service components (preservice and supervision), the need for research and development in vocational education extends far beyond these two areas. Therefore, all Ohio universities and other appropriate agencies would be eligible to compete for R&D allocations.

The role of SDVE would be to issue requests for proposals and also to consider concept papers from the field. Proposals or concept papers funded would not be artificially constrained by time; an R&D effort could take 3 months or extend over a year, depending on the nature of the topic to be investigated.

Process Concerns

Planning of the services and activities would be a collaborative effort of VSDCs and state staff. At meetings before the start of the planning or budget year, VSDC directors would present the results of needs-sensing activities in their regions, and the state staff would review the results of PRIDE evaluations and their own internal planning. Through joint discussion, priority "targets" for activities during the year would be set. The targets would be general enough to allow flexibility, yet clear enough to fulfill the federal mandates. More detailed planning of activities would take place as each VSDC prepares its plan and budget for the year.

The ideal contract format under this model would be a multi-year working agreement, with provisions for annual renewal and negotiation of activities. Each contract would have component parts or activities that could vary from VSDC to VSDC. For example, one VSDC might decide not to bid on a component for teaching survival skills to nondegreed teachers. However, in order to qualify as a center, an institution would have to submit a proposal for four of the eight services. The three services deemed most important are preservice, supervision, and pedagogical update. The fourth service that ideally should be included is skills testing.

The intent of the multi-year working agreement and comprehensive activity base would be to foster relatively stable funding for each VSDC. Any major changes occurring in funding levels would be due to a VSDC's decision to add or drop a component of activity.

Accountability on an annual basis would be verified by a report detailing the year's activities and the results. Because of the large dollar amounts being invested per institution, SDVE might commission a third-party review of each VSDC, to occur during the middle year of the multiyear contract. This review, to be provided by an impartial organization, would examine the impact and efficiency of the VSDC. Corrective action could then be taken to deal with any problems discussed during the review. Failure to make corrections within the next year would disqualify the VSDC from rebidding for the problematic component activity(s).

Implementation Concerns

This model represents a considerable departure from the current mode of operations in Ohio. It is highly unlikely that some of the smaller universities now being funded would qualify to be part of a VSDC, unless a subcontracting approach were to be used. Some institutions might be reluctant to enter into a subcontracting relationship with their fellow universities. Significant political opposition to this approach might result from these circumstances. This has been the case in other states implementing similar centers, and must be weighed as a potential cost of the altered structure.

Furthermore, the interdepartmental collaboration required to set up the VSDC and plan for staffing might be more extensive under this model than under the other approaches. In addition to interdepartmental concerns, there may be cases where two or more universities would wish to act as a consortium to comprise a center. Obtaining approvals and designating procedures to handle this situation would be more time consuming than setting up a master contract with one institution. Because of these concerns, the transition period should be fairly lengthy and feature heavy collaborative involvement of a council of university and SDVE representatives. SDVE may wish to provide financial support to assist planning during this period. It also might be beneficial to obtain technical assistance from other states that have used the center mode.

Strengths, Weaknesses, and Benefits

Every system has inherent strengths and weaknesses for the institutions involved as well as benefits for the community at large. Perceived strengths and weaknesses for LEAs, universities, and the SDVE are set forth in table E-1.

TABLE E-1

PERCEIVED STRENGTHS AND WEAKNESSES OF MODEL C

Instition/ Agency	Strengths (Pros)	Weaknesses (Cons)
LEA	LEAs would have improved access on a regional basis to comprehensive services.	LEAs would have a passive role relative to the determination of services.
Universities	Concentrated funding would go to institution involved in centers. Universities' maintenance might benefit from multi-year contracts for some activities. Universities would have a leadership role in determining services to be delivered to that region.	Some universities could conceivably lose their funding due to lack of a comprehensive program or failure to join in a consortium with a center-designed university. Individual university departments might lose some autonomy because of a generic approach to providing some services. Discretionary use of monies would be reduced. The amount of paperwork and reporting responsibilities would increase.
SDVE	Concentrated, comprehensive programs would effect an efficient use of resources. Accountability for money spent for services would be improved. Coordination would be facilitated by the centralized structure. Greater opportunity to target activities to federal priorities and statewide needs would be present.	More administrative and contract monitoring duties than currently required would be mandated.

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